

What are the Delivery System Design Characteristics of Information-Centric Mass Claims Processes?

Submitted by Kyle Vierra Alves

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Abstract

This thesis examines the operational delivery systems of information-centric Mass Claims Processes. Empirical data is presented which builds upon existing literature within the Operations Management discipline. This thesis aims to extend the area of knowledge which focuses on the rendering of assistance to very large groups of individuals disadvantaged through particular events such as armed conflict, civil unrest, acts of government and other similarly sweeping actions. One such approach of aid delivery is through a legal process known as a Mass Claims Process which delivers assistance.

This research examines how this assistance is rendered to the individual, the 'claimant', through a legally guided and controlled analysis of claimant-provided information. Such organisations are typically either publicly funded or funded through social schemes, which introduces significant pressure for efficiency. Similarly, the legal nature of MCPs emphasises the need for accuracy in the delivery of justice and law.

The research addresses a number of areas not fully explored by the extant literature. There is a lack of research which explores the apparent trade-off between efficiency and accuracy in large scale legal services. Little empirical evidence exists on the application of Postponement strategies in information-centric operations. This research also investigates a previously unexplored context in which strategic frameworks must find optimal alignment between the service concept and the design of the delivery system in a restricted and challenging environment.

Fieldwork was carried out over a three year period in two separate organisations, and utilised a polar case approach to increase the validity of the findings. The phenomenon of information interrelation, previously unidentified in the literature, is shown to have significant impact in this context. Several models are presented to describe the dynamic relationships between the characteristics and the strategic choices of the MCP. The results produce a set of findings illustrating optimal design choices for the key delivery system characteristics associated with MCPs.

The financial impact of such organisations reaches into the billions (USD), and will continue to be a significant economic consideration for the foreseeable future. As such, research in this area has the ability to increase the efficient use of organisational resources for the organisations, while improving the service for the applicants. Whilst this thesis contributes to the body of knowledge for delivery system design, further research is welcomed, especially on the phenomenon of information interrelation, for the growing area of information-centric organisations.

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List of Abbreviations & Acronyms

Avaya	IT system used in the call centre to manage incoming phone inquiries
BACS	Banker's Automated Clearing Services
BCMS	British Cattle Movement Scheme
BO	Back Office
CAR	Carlisle (RPA office location)
CEO	Chief Executive Officer
COO	Chief Operating Officer
CREG	Customer Registration
CRPC	Commission for Real Property Claims of Displaced Persons & Refugees
CRT	Claims Resolution Tribunal for Deposited Assets in Swiss Banks
CSC	Customer Services Centre (call centre)
DEFRA	Department for the Environment, Food, and Rural Affairs
DMU	Document Management Unit
DRT	Document Response Team
EC	European Community
EC	Entitlement Corrections
ET	Entitlement Transfer
EU	European Union
EXE	Exeter (RPA office location)
FO	Front Office
FO-BO	Front Office / Back Office
GDP	Gross Domestic Product
GFLC	German Forced Labour Compensation
GST	General Systems Theory
HPCC	Housing & Property Claims Commission, Kosovo
HPD	Housing & Property Directorate
HVDC	High Volume Data Capture
IACS	Integrated Administration and Control System
ICAM	Integrated Computer Aided Manufacturing
ICC	International Criminal Courts
ICHEIC	International Commission on Holocaust Era Insurance Claims
IDEF	Icam DEFinition for Function Modelling
IOM	International Organisation on Migration
IRIS	Integrated Rural Information System
IT	Information Technology
MCP	Mass Claims Process
NA	Northallerton (RPA office location)

NCL	Newcastle (RPA office location)
NFRAVNS	National Fund Republic of Austria for Victims of National Socialism
NORDEM	Norwegian Resource Bank for Democracy and Human Rights
OCR	Optical Character Recognition
OLV	OnLine Valuation
OM	Operations Management
OP	Overpayments
OPT	Operations Team
OREGON	IT system which managed RPA finance workflow and data
OSA	Open Systems Architecture
PCA	Permanent Court of Arbitration in the Hague
PMG	Performance Management Group
RDG	Reading (RPA office location)
RITA	RPA Information Technology Application
RLR	Rural Land Register
RPA	Rural Payments Agency
SBI	Single Business Identifier
SPS	Single Payment Scheme
SPSMU	Single Payment Scheme Management Unit
SST	Service Strategy Triad
TMCP	Transnational Mass Claims Processes
UNCC	United Nations Compensation Commission
UNMIK	United Nations Mission in Kosovo
VMD	Veterinary Medicine Directorate
WCW	Whole Case Worker
WTON	Workington (RPA office location)
XC	Cross Compliance

1 Introduction

This chapter introduces the topic and scope of the research, and explains the structure of the thesis. Section 1.2 puts forth the context and rationale for the research; while Section 1.3 states the research aims and objectives. The significance of the study is emphasised in Section 1.4, followed by the general outline and summary of the organisation of the thesis in Section 1.5.

1.1 Context and rationale for the research

This thesis aims to extend the area of knowledge which focuses on the rendering of assistance to very large groups of individuals disadvantaged through particular events such as armed conflict, civil unrest, acts of government and other similarly sweeping actions. One such approach of aid delivery is through a legal process known as a 'Mass Claims Process' which creates an organisation tasked with delivering assistance. This research examines how this assistance is rendered to the individual, the 'claimant', through a legally guided and controlled analysis of claimant-provided information.

The aim of this thesis is to extend the base knowledge on the influences of design of delivery systems using empirically-derived evidence.

This section will describe mass claims processes and briefly illustrate the financial impact of such processes. The need for empirical research in this context is supported through recent relevant literature.

1.2 The Mass Claims Process

The goal of a mass claims process (MCP) is the resolution of an enormous volume of claims arising out of a similar event or circumstance (PCA, 2006: from the forward, page v) and typically exhibits the following characteristics:

- a set of claims sharing issues which are sufficiently similar so that it is more efficient to adjudicate the claims in a single claims process than in a series of individual proceedings

- a large group of claimants opposite a single respondent or a small group of respondents
- the respondent is usually a sovereign state or a corporation
- usually more than 5,000 claims submitted.

Generally, these processes are designed to create an output of either payment or a legal verdict/decision. Such verdicts/decisions would then be used by the recipient to exercise their rights over disputed property; as a right-of-entry into an organisation providing assistance to a specified group.

1.3 Scope of impact of mass claims processes

The Permanent Court of Arbitration (PCA) in The Hague, Netherlands advises the various organisations on the approaches to administering mass claims processes, many of which are currently operating in locations around the world (Arbitration, 2017). The financial impact of the organisations managing these processes is significant, as illustrated by the examples below.

- Claims Resolution Tribunal for victims of Nazi persecution– over USD\$1.25 billion (CRT, 2010)
- International Commission on Holocaust Era Insurance Claims – over USD\$300 million (ICHEIC, 2007)
- National Fund of the Republic of Austria for Victims of National Socialism – approximately USD\$1.5 billion (NFRAVNS, 2009)
- Foundation for Remembrance, Responsibility, and the Future (compensation for victims of forced labour in Germany 1937-1945) – over EUR€5 billion (EVZ, 2017)

These examples show that the financial impact of such organisations reaches far into the billions, and the impacts can be felt world-wide. Additionally, new organisations can be created at any time. For instance, in 2015, the United Nations took further steps towards the establishment of a mass claims process for Palestinians to claim restitution for losses suffered during Israeli occupation of Palestinian territory (U.N., 2015). Such actions suggest that mass claims processes will continue to be created, and that their economic and social impacts will be present for the foreseeable future.

1.4 Application to judicial settings

The examples above illustrate a situation with several important and relevant factors for this research. First, these organisations provide comfort and security to those adversely affected by large-scale events or acts of government. Second, these organisations offer a form of restorative justice to disadvantaged subjects. Third, these organisations must operate within- and be guided by- the rule of law. These factors place the organisation in a difficult situation whereby it must attempt to provide the concept of 'justice' to each claimant; follow strict legal guidelines in the provision of 'justice'; and ensure that the resources consumed during operation are not excessive in the eyes of the publicly-funded stakeholder organisations. This introduces the final factor for consideration, the responsibility of providing restoration to the disadvantaged, supporting the rule of law, and the provision of justice within the reasonable cost considerations required by publicly funded mechanisms. Above and beyond simply 'doing its job', the organisation must consider producing quality outputs efficiently, thus reducing the burden on the public purse.

This balance between efficiency and effective provision is currently under examination by a small set of researchers in the disciplines of law and management. In looking at courts, Radnor & Osborne (2013) remarked on the societal pressure for efficiency on organisations delivering public services, proving appropriate use of taxpayer funds. Other research suggests that due to the multiple exertions of pressure on the organisation to meet societal, judicial, and operational goals, courts require the use of a systems perspective to be managed effectively (Seepma *et al.*, 2015). Understanding the influences of these additional, sometimes conflicting interests is best understood using a systems perspective to illustrate how they affect the success of the organisation.

Other research described how attempts to deliver on multiple goals in such judicial settings often resulted in failure to achieve at least one of the goals. The research of Karwan & Markland (2006) on the provision of electronic-based public service provision observed a failure to deliver public value, or socially equitable outcomes. While efforts to increase efficiency is seen fairly regularly

in administrative public services (Frei, 2006; Osborne *et al.*, 2013; Radnor & Johnston, 2012), the application of such approaches in the judicial sector of public service is limited (Dimitrova-Grajzl *et al.*, 2012; Ford, 2014; Scharf, 2004; Seepma *et al.*, 2015).

Others posit that there is value to be had in the application of academic research and known management practices to this context, but currently there is very limited guidance on how to improve delivery mechanisms to increase efficiency and transparency within these systems, while remaining effective in the eyes of those receiving the assistance. (Radnor & Osborne, 2013; Osborne *et al.*, 2013; Radnor & Johnston, 2012). Adding further complication, these large scale legal judicial processes face pressure for efficiency from third-party stakeholders who provide their funding (Ford, 2014). The paucity of research in this context has been outlined by researchers in both the law and management disciplines: (Dimitrova-Grajzl *et al.*, 2012; Seepma *et al.*, 2015).

This research informs the design of delivery systems for mass claims processes through empirical research.

1.5 Theoretical context

A semantic distinction should be made for the use of the term '*mass*' as used in Mass Claims Processes, and '*mass*' as used in the Operations Management (OM) discipline.

The process design literature is replete with descriptions and definitions of mass production, which is generally understood to be a high volume, narrow variety, production of goods (Slack *et al.*, 2010; Hayes & Wheelwright, 1979; Taylor, 1911). Mass service, by Slack's (2010: 95) description, is very similar; "*many customer transactions, involving limited contact time and little customization.*" Maister & Lovelock (1982) described mass services as being characterised by a high level of standardisation of procedure, where within these types of processes, the activities performed are very repetitive and highly predictable.

Mass claims processes both conform to, and are at odds with these typologies. Conformity certainly occurs in volume, which can vary from a low of 5,000 and reach as high as 2.6 million (PCA, 2006). While one might argue that high-

volume is an organisationally-relative term, these numbers suggest that the numbers fit both Slack's and Maister & Lovelock's concept of high-volume.

In contrast to these descriptions are the standardisation and/or customisation levels in the MCP. These processes may appear to be highly repetitive, highly predictable, and show little customisation, but this research shows only select parts of the process share these characteristics. Customised decisions are needed when facing the unique nature of independent claims which contain the data unique to the individual claimant.

Further, examples from operational typologies are unhelpful in characterising mass claims processes. In describing mass services, Levitt (1972) uses examples of fast-food restaurants and life insurance provision; Maister & Lovelock (1982) uses real estate agents, travel agents, and employment agents as examples of mass service; Schmenner (1986) uses retailing, wholesaling, and schools; and more recently Buzacott (2000) places cafeterias and fast food outlets as being cast in the same 'highly standardised, routine processing' mould of mass services.

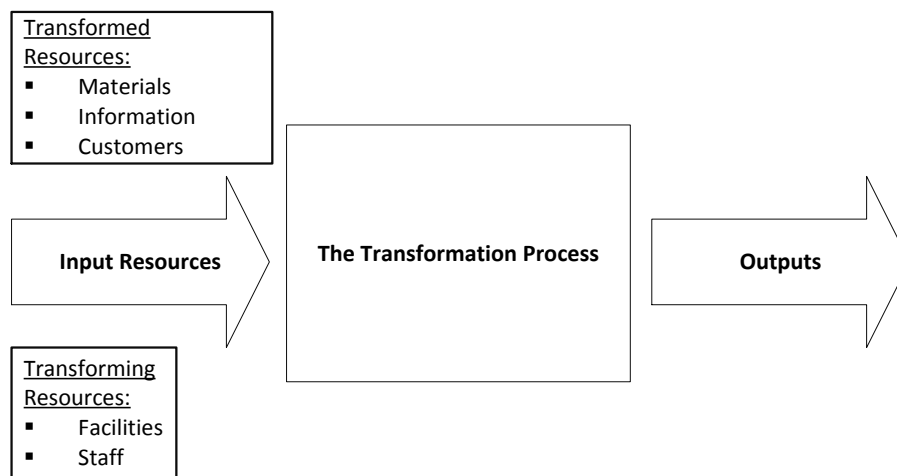
Clearly, these example organisations are significantly different to the mass claims process organisations described above. Considering the nature of the actions undertaken by the organisation, one could easily draw parallels with professional legal services. However, the similarities end when discussing the high volumes faced by mass claims processes. These differences evidence the difficulty in comparing mass claims processes with 'mass production' or 'mass services', despite sharing the descriptor '*mass*.'

1.6 Foundational constructs

This work is focused on the design of delivery systems. It is therefore important to explore the concept of a delivery system, its constituent parts, its relationship to the organisation. Fundamentally, this research focuses on the evaluation of how a delivery system transforms a set of inputs into outputs for the customer (Bayraktar *et al.*, 2007; Chopra *et al.*, 2004). This is a simplified, summary view of the main focus of the discipline of Operations Management (OM) (Bayraktar *et al.*, 2007; Chase & Aquilano, 1995). Illustrated here in Figure 1.1, this model

presents the widely-accepted 'transformational model' (*inter alia* Slack *et al.*, 2010; Chase & Aquilano, 1995).

Figure 1.1 – The Transformational Model (Slack *et al.*, 2010)



The analytical framework of Lovelock (1983) and Morris & Johnston (1987) is employed, which presents three broad categories of transformed resources; materials, customers, and information. This research examines organisations which transform information as the dominant transformed resource. In the case of MCPs, the research shows that the organisation requests inputs from claimants, transforms this input into an output using the guidance of law, the rules governing the MCP, and other related sources; then delivers that output in the form of a decision to the claimant. Information is clearly the dominant input used by the delivery system to render the desired output to the claimant. Therefore, the term information-centric delivery system is used to further specify the domain of theory for this research.

It is important here to note those organisations which are commonly mistaken for information-centric, so as to avoid misinterpretation of the term. Often, hospitals are described as information-centric due to the large volume of patient data, operational data, medical informational resources which are present in that delivery system. Similarly, modern manufacturing has been described as having information-centricity due to the vast amount of managerial information produced by ongoing performance monitoring. These, and similar operations, are excluded from the category of information-centricity.

The category is based on the dominant transformed resource requested by the customer. The patient in the hospital requires treatment which focuses on the customer; the doctor may require informational inputs which describe the patient's condition. However, the transformational activity is focused on the person. A broken leg is set and cast; a body suffering from disease is treated with medicine; etc. In the factory, the customer is not paying to consume performance measurement/monitoring. This information is generated to assist managerial decision-making in improving or maintaining performance. For these reasons, such organisations are not considered information-centric.

The long history of OM as a discipline focused heavily on the transformation of materials in a manufacturing environment (Machuca *et al.*, 2007; Pannirselvam *et al.*, 1999). In the more recent past, academic exploration of customer-centric operations has grown, benefitting from the increased attention resulting from repeated calls for research activity in that context (*inter alia*, Chase & Apte, 2007; Fisk *et al.*, 1993; Hayes, 2002). Information-centric organisations have recently fallen under scrutiny as an area neglected by researchers, despite the significant increases seen as a result of new technologies and significant increases in economic activity associated with information-centric organisations. This is explored in the following section.

1.7 Growth of information-centric organisations

There is clear and concrete evidence on the growth of information-centric organisations, both in the number of organisations and in their economic contribution. Early work in estimating the impact of information-centric organisations was done by Machlup (1962) who estimated in 1958 that 29% of the United States GDP was generated by information-centric organisations; or as Machlup called it, the 'knowledge industry'. More recently, Karmarkar & Apte (2007: 440) estimated the economic impact of information-centric organisations as 53% of US GDP in 1997. Now, nearly twenty years later, in the face of rapid expansion and growth of technology-supported organisations such as Google and Facebook; the ubiquitous telecommunications/internet service provision industry; the significant presence of consultancy firms such as KPMG and Accenture; the enormity of the financial services sector; and the impact and rise

of 'big data' and the analytical revolution it promises; there is firmer foundation from which to state the need for additional research in this context.

1.8 Research aims and objectives

The challenge for practitioners in the design of delivery systems is that such systems must be sufficient in meeting the demands of the stakeholders. As described above, in the context of Mass Claims Processes, stakeholders are comprised of both the claimants and those who fund the activity. The extant MCP literature illustrates an ever-present pull in two directions; the claimants desire the thoroughness of justice that provides accuracy in decisions, while the funding bodies desire high levels of efficiency and value-for-money. This tension between these twin demands is further described in Chapter 2.

The delivery system design literature provides principles of design which are based on alignment with strategic choices of target market and service concept. Delivery system archetypes have been developed to inform design on optimal alignment choices, based on the volume-variety mix. These elements in-turn affect decisions on characteristics of the delivery system. Such high-level archetypes do not directly consider those high volume operational systems which must deliver outputs bound by strict legal parameters, leaving practitioners faced with design challenges in this context without rigorous academic support. These under-explored areas of research are identified and discussed in Chapter 3.

To summarise, the literature provides limited guidance in specifying delivery system design characteristics to deliver the demands of both accuracy and efficiency in this context. The limitations identified in the literature provide the basis for the objective of this research:

- To explore the design characteristics of delivery systems in information-centric Mass Claims Processes.

The objective of the study is researched using a theory-building approach. The following research question is derived and empirically examined:

- What are the delivery system design characteristics for information-centric Mass Claims Processes?

To address this research question, the relationship between design, the service concept, and delivery system design characteristics is explored empirically in information centric Mass Claims Processes.

1.9 Significance & Contributions of the study

This section illustrates both the need and the potential impact of research in this context. The previous sections demonstrated a need for further exploration of delivery system design within information-centric organisations and also within the context of Mass Claims Processes.

The empirical evidence presented provides a contribution to knowledge in delivery system design. This is presented in Chapter 11, section 11.2. The exploration of the characteristics which influence operational performance of the delivery system produced five contributions to the existing body of knowledge.

First, empirical support was found which illustrates a previously unexplored theoretical relationship which exists in Mass Claims Processes between the delivery system, the service concept, and target market. This research illustrates a dynamic whereby the legal decision which creates the MCP also clearly defines and rigidly sets both the target market and the service concept. In this scenario, the delivery system is the only entity of the three that is not rigidly defined; and thus must bear the burden of alignment for optimal organisational performance. The impact of this new dynamic for academics and practitioners is presented.

Second, this study extends existing delivery system design theory which focuses on the characteristics of delivery systems required to deliver a service concept to a target market. This research presents evidence of an organisation with a single delivery system shaped at different points by multiple sets of fundamentally strategically different design principles. It is argued that the different design principles identified in this research enable the MCPs to successfully deliver the service concept with both judicial accuracy and efficiency.

Third, the study extends the existing theory on the application of postponement strategies in services. The results of this study provide evidence that an MCP should reject postponement strategies, and instead move the point of customisation closer to the start of the process rather than nearer the point of delivery to the claimant. The findings show that eschewing postponement and increasing customisation activity in information input collection reduces inefficiency later in the analytical stages.

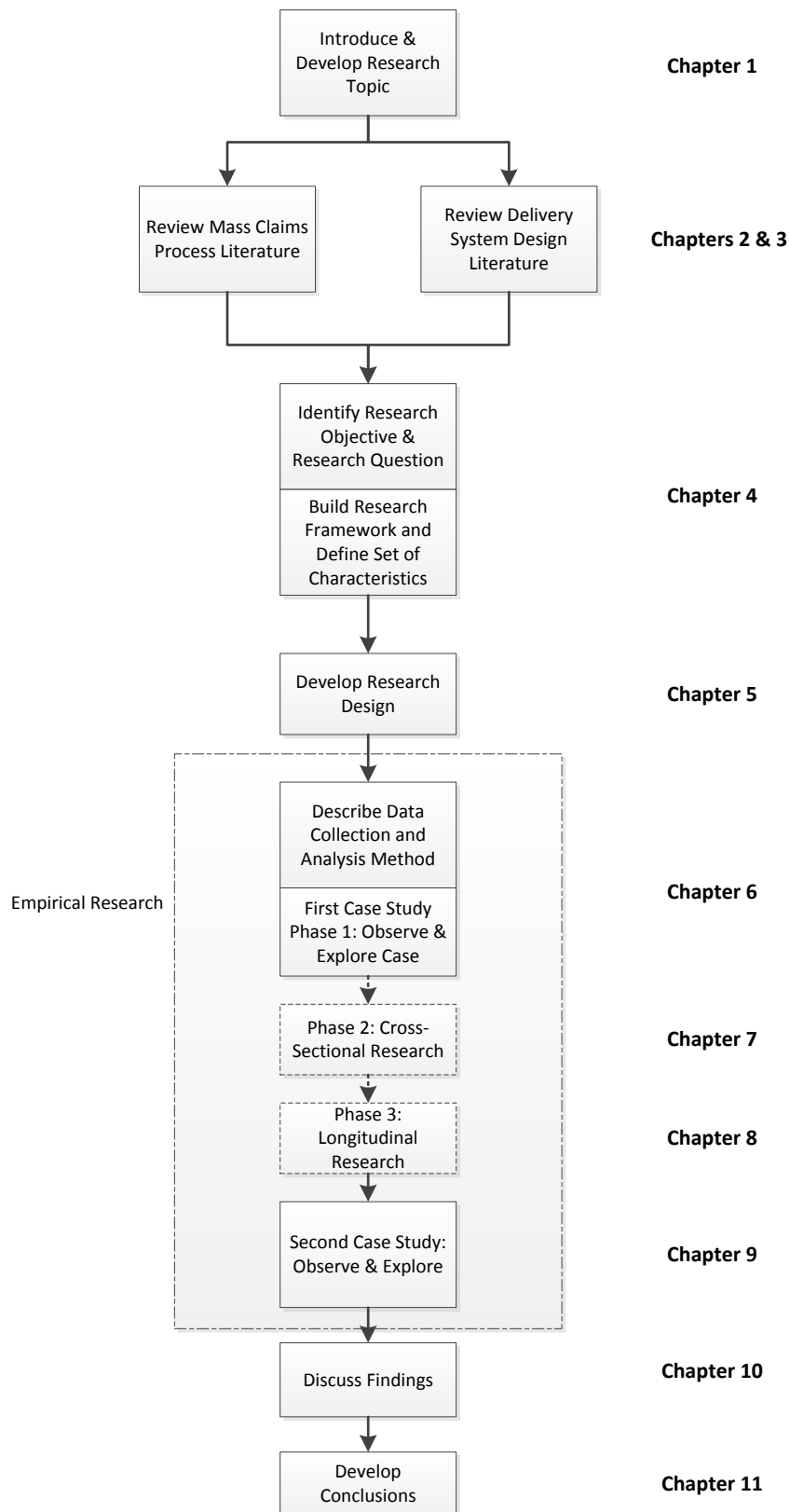
Fourth, this work contributes a previously unidentified phenomenon associated with information-centric organisations to existing knowledge. The concept of information interrelation is illustrated and described; and three types of interrelation are presented. It is argued that information interrelation is a significant factor in resource consumption, affecting both judicial accuracy and efficiency in the organisation.

Fifth, an additional contribution is made relating to the context of information-centric delivery systems, which bear the characteristics of both mass services and professional services. This research finds that large scale Information-centric delivery systems benefit from the merger/combination of existing archetypes of delivery systems. The evidence collected herein supports a hybrid delivery system which is optimised using characteristics of both standardisation and customisation in order to deliver seemingly conflicting goals of efficiency and accuracy. This approach provides a means of producing benefits to stakeholders and recipients/claimants alike.

1.10 Organisation of the thesis

The thesis is presented in eleven chapters as illustrated in Figure 1.2 below. This section presents the content of each of the chapters of this thesis.

Figure 1.2 – Overview of the research process



1.11 Chapters 2 and 3: review of the extant literature

The literature describing Mass Claims Processes and Delivery System Design are reviewed to determine the concepts which are the most applicable for delivery system design in Mass Claims Processes. The mass claims literature draws from the study of international law and conflict resolution; while the delivery system design literature sits within the discipline of Operations Management. This foundational distinction is the reason for the separate reviews of these two literatures.

Chapter 2 focuses on the Mass Claims Process literature. This chapter presents a detailed description of these organisations in section 2.1 and compares and contrasts the different types of aid provided to claimants in section 2.2. The legal processes which create MCPs are examined in section 2.3. Sections 2.4 & 2.5 explore the extant MCP literature on strategic considerations, as well as the subsequent delivery system design considerations for MCPs. Chapter 2 concludes in section 2.6 by presenting a summary of the emergent relevant concepts and constructs, and presents areas where the literature can be supplemented by further research.

Chapter 3 examines the Delivery System Design literature. This chapter begins in section 3.1 by exploring the unit of analysis for this research; comparing and contrasting the concepts of system, process, and organisation. Section 3.2 discusses the intent and purpose of design, and the operational concepts which require consideration for delivery system design. Section 3.3 examines the literature on the relationship between design and operation of the delivery system, and how optimal performance of the delivery system is created. Section 3.4 focuses on illustrating the delivery system design characteristics presented in the literature. Section 3.5 presents how delivery system design characteristics in OM contribute to the creation of classification schemes. Such classification schemes provide theoretical insight into design. Chapter 3 concludes with a summary of the discussion and a presentation of the constructs and concepts relevant to this thesis.

1.12 Chapter 4: Conceptual Framework

Chapter 4, section 4.1, presents a synthesis of the review of the literature and identifies where the extant research fails to provide insight in this context. The chapter presents the research question on which this thesis focuses. Section 4.2 presents the *Service Strategy Triad* combined with the design characteristics of:

- Degree of Routinisation
- Degree of Employee Discretion
- Worker Skill Level
- Degree of Automation
- FO/BO Configuration
- Batching techniques
- Postponement.

These are the key concepts and characteristics which comprise the conceptual framework underpinning this research. This framework is presented in section 4.4, and is used to address the research question, guide data collection, and inform the approach to analysis of that data.

1.13 Chapter 5: Research Methodology

Chapter 5 describes and justifies use of the research methodology. The aim of the chapter is to provide assurance that the research method adopted is appropriate. This research is shown to align with a 'critical realist' perspective, which is described in this chapter. Support is provided for the choice of case-based research; in particular, the use of polar cases to identify more robust findings is described. The chapter presents the criteria for inclusion as a Mass Claims Process and justifies selection of the cases used in the research based on those criteria. The units of analysis are identified and described, along with the description of the data collection approach. The chapter presents discussions on the approaches to ensure validity and reliability; illustrating the use of the 'chain of evidence' which anchors each section of the research in the foundations established in previous sections.

1.14 Chapters 6, 7, and 8: Case Study in three phases – SPS

Observations made in the case study show that the characteristics of the delivery system in the first case study align with the recommendations of the existing literature, but optimal performance was not being achieved. The research observed phenomena which negatively affected the performance of the case organisation, despite the application of characteristics as determined by extant research. Additional research in the focal organisation sought to understand the nature of the phenomena which reduced the ability of the delivery system to reach organisational goals for performance.

1.15 Chapter 9: Case Study - HPD

The findings from the first case study are then applied to a second case study in chapter 9 to better understand the how observed sub-optimal performance is mitigated. The second case presents observations on a delivery system which was performing optimally to determine how the focal set of characteristics of the delivery system enhanced the ability of the delivery system to meet organisational goals. The emergent phenomena from the first case are examined in the context of the second case in order to enhance contextual understanding.

1.16 Chapter 10: Discussion

In Chapter 10, the set of findings from the data analysis is discussed and summarised. The findings are compared and contrasted between the two cases, and outcomes are assessed. The synthesised case findings are then discussed within the context of the existing literature to illustrate and highlight findings.

1.17 Chapter 11: Conclusions

Chapter 11 presents the contribution to knowledge from this research. A set of observations stemming from the research is presented, conclusions will be drawn, potential topics for future research will be illustrated, and limitations of the research will be discussed.

2 Mass Claims Processes

The purpose of this chapter is to explore the extant literature on Mass Claims Processes (MCP). This chapter contains six sections.

Section 2.1 defines the MCP, explores the history and origins of such organisations, and demonstrates the impact of MCPs both in financial terms and in the enormous scale of people affected.

Section 2.2 illustrates what MCPs hope to deliver, and the end-product options.

Section 2.3 discusses the challenges facing MCPs. This discussion is then followed by an exploration in Section 2.4 of the operational considerations which must address those challenges.

Section 2.5 presents a summary of the considerations of process design found in this literature.

Section 2.6 summarises the main findings from this chapter.

It should be stated here that the origins of MCPs stem from legal actions, and as such the literature which describes them sits within the discipline of Law. The academic attention given to past MCPs and the lessons learned from their actions is found within the legal literature. The discussion from the Operations Management discipline on delivery system design for operational processes which resemble MCPs appears in the chapter following.

2.1 The Mass Claims Process described

The goal of a mass claims process is the resolution of a very large body of claims which have origins in a similar event or circumstance (Holtzmann & Kristjansdottir, 2007). Generally, such events or circumstances create a large number of parties deserving reparation of damages or some form of assistance resulting from the event or action. The mechanisms put in place to resolve these claims have been called 'Mass Claims Processes'.

MCPs face two main requirements: the provision of swift justice and due process (Holtzmann & Kristjansdottir, 2007; Karrer, 2005; McGovern, 2006;

McGovern, 2009; Niebergall, 2009). It is the goal of this research to further explore the operational reconciliation of these requirements.

Finding the balance point between both rapid and efficient resolution and the delivery of due process becomes especially problematic when the overwhelming volume of cases excludes the possibility of using domestic courts and/or public sector workers (Niebergall, 2009; Wühler & Niebergall, 2008). Domestic courts and the public sector can typically afford the time and attention required to deliver acceptable outcomes. Additionally, a MCP is often initiated by the need to address losses from an event such as civil war or other acts of international aggression. Such events leave the domestic court system even more dysfunctional (Wühler & Niebergall, 2008) thus making a MCP the logical legal venue for settling such a body of claims.

The task of resolving a large number of claims is further complicated by limitations on human resources, limited funds available for compensation, and *“high expectations within the victim communities and strong political pressure to deliver results in a short period of time”* (Wühler & Niebergall, 2008: 2).

2.1.1 Origins

The first MCP is widely regarded to emerge from the Jay Treaty of 1794, which created a claims process as a result of arbitration over U.S.- Canada border disputes (Crook *et al.*, 2005; Holtzmann & Kristjansdottir, 2007; Wühler, 1999). The claims involved in this process concerned the unlawful seizure of vessels by British and French privateers during the American Revolutionary War.

Other events which spawned MCPs include The Boxer Rebellion in China in 1900 and the Treaty of Versailles in 1918 (Wühler, 1999: 250) both delivered reparations to those who suffered losses during armed conflict. The so-called ‘modern era’ of MCPs began with the U.S.-Iran Claims Tribunal (Carrillo & Palmer, 2010: 351). This tribunal was established to compensate for losses stemming from the conflict between Iran and the U.S., which began with the siege of the U.S. Embassy in Tehran and the subsequent capture and detention of American hostages.

Along with the example above, MCPs can be created from various events: post-conflict peace agreements, intervention by international legal entities such as

the International Criminal Court, the resolution of class action lawsuits, or an agreement between states stemming from domestic legislation (Holtzmann & Kristjansdottir, 2007).

Typically, MCPs are established to provide either assistance or reparations to a defined set of claimants. Reparations can take several forms: restitution, compensation, or rehabilitation (these are further described in section 2.1.3 below). Assistance is a more inclusive term describing measures provided in response to need, and can include development projects, humanitarian aid, and funding provided through state sponsored subsidies (Dixon, 2015).

Since 1980, the number of new international courts and tribunals increased dramatically (Alford, 2000), and the area of international law dedicated to the tribunals and commissions which operate MCPs has similarly expanded. The modern era has also generated a greater need for a “*more methodical approach to the study of transnational mass claims processes*” (Carrillo & Palmer, 2010: 428). The need for further study of this area is emphasised by the number of people they affect and the financial impact of MCPs globally.

2.1.1 Financial Impact

The financial impact of MCPs has been, and continues to be significant. Table 2.1 below illustrates the financial impact of MCPs in the modern era, and compares financial impact in terms of funds allocated to the MCP, with the volume of claims for each organisation.

Table 2.1 - Impact from Mass Claims Processes

MCP	Volume of claims in the MCP (<i>approx.</i>)	Funds allocated to the MCP	Source
UNCC	1.5 million	USD\$35.4 billion	(UNCC, 2012)
Iran-U.S. Claims Tribunal	4,000	USD\$3.4 billion	(Carrillo & Palmer, 2010)
Claims Resolution Tribunal (CRTI & II)	42,000	USD\$1.25 billion	(Holtzmann & Kristjansdottir, 2007)
International Organisation on Migration (IOM)	315,000	DM10 billion	(Holtzmann & Kristjansdottir, 2007)

MCP	Volume of claims in the MCP (<i>approx.</i>)	Funds allocated to the MCP	Source
Hungarian human rights abuse claims	97,000	USD\$9 million	(Carrillo & Palmer, 2010)
International Commission for Holocaust Era Insurance Claims (ICHEIC)	70,000	US\$300 million	(ICHEIC, 2007)

The figure shown reflects the funds provided for the operation of the MCP, which includes both funds available to claimants and funds available for the organisational operation. This selection shows that the financial impact of such organisations reaches well into the billions, and is expected to continue. New organisations can be created at any time. For example, present-day conflicts like that between Israel and Palestine may well lead into a property claims process (U.N., 2015; Carrillo & Palmer, 2010: 429). It is likely these types of organisations will continue to be a significant economic consideration for the foreseeable future.

2.1.2 Features Defining Mass Claims Processes

The definition of a mass claims process is brief, containing only a few agreed requisite features. It is described as having the following:

- A set of claims sharing issues which are sufficiently similar so that it is more efficient to adjudicate the claims in a single claims process than in a series of individual proceedings.
- A large group of claimants opposite a single respondent or a small group of respondents.
- A sovereign state or a corporation as the named respondent.
- More than 5,000 cases.

The above list is generally agreed (PCA, 2006; Holtzmann & Kristjansdottir, 2007; McGovern, 2006; Wühler & Niebergall, 2008) with only minor disagreement on the final point describing the number of cases. At the low end of volume, the Iran-U.S. Claims Tribunal resolved approximately 4,000 claims,

but is still considered a mass claims process (Alford, 2000; Carrillo & Palmer, 2010; Wühler & Niebergall, 2008). While at the high end of the scale, the United Nations Compensation Commission (UNCC) settled over 2.6 million claims for losses related to Iraq's 1990 invasion and occupation of Kuwait (Wühler, 1999).

The names 'tribunal' and 'commission' are used frequently as official titles for the organisation with the responsibility of treating of submitted claims. Along with 'tribunal' and 'commission,' the literature is consistent in the inclusion of 'class actions' under the title of 'mass claims process' (Holtzmann & Kristjansdottir, 2007; Carrillo & Palmer, 2010). However, there is no "*uniform reason for this distinction and no legal significance derives from which term happens to be used*" (Holtzmann & Kristjansdottir, 2007: 5).

The defining features which describe high levels of claim volume and homogeneity in the type of output offered by the organisation appear to align with many of the defining features of related archetypes from the delivery system literature. The similarity to 'Batch' and 'Assembly Line' process archetypes will be illustrated and explored in chapter 3. The descriptors which focus on the entity responding to the claims, and the opposing sides in the litigation are clearly grounded in the legal literature. The mix of concepts from two disciplines provides further support for drawing on the two literatures for the purposes of this research.

2.1.3 Separation from Insurance Claim Processes

This literature discusses a common error of comparison between MCPs and insurance claim resolution processes. Several fundamental differences are discussed regarding the problems the two types of organisations face. Insurance claims processes might implement a 'claims resolution facility' (McGovern, 2006) as a mechanism for operation. This broader definition of the operational capability includes both insurance claim processes and MCPs; but the literature is clear in stating the MCP requires a different approach.

"Faced with the novel problems of the humanitarian claims process, which were far outside typical insurance claims practice, (the organisation) chose to contract the tasks of designing and

administering it to an outside organisation, rather than creating a new organisation in-house or delegating the tasks to the staff of insurance companies whose experience related to solving quite different problems." (Holtzmann & Kristjansdottir, 2007: 36)

McGovern (2006) describes this different approach as the ability to disconnect the damage, and thereby the need for assistance or reparation, from the liability for the act. An insurance process relies on the determination of liability in order to then act on providing the related entitlement stemming from that liability. MCPs function on the assumption of a liability, but focus entirely on reparation. The MCP does not expend any resource in defining or determining liability.

2.2 Assistance or Reparation

As discussed above, the goal of the MCP is to provide reparations or assistance. Each decision rendered by the process must ensure fair and equal treatment of all the claimants, which means designing the process to deliver consistent decisions (Holtzmann & Kristjansdottir, 2007). While the provision of assistance can take many forms including state sponsored subsidies (Dixon, 2015), the primary types of reparation available to successful claimants in MCPs are restitution of property or assets, monetary compensation, or rehabilitation (Carrillo & Palmer, 2010; Henzelin *et al.*, 2006).

2.2.1 Restitution

Restitution generally seeks to return the claimant to the state which existed prior to the event or offense which prompted the creation MCP. Restitution can be financial, personal, or legal; and might take the form of the return of property or reimbursement for expenses made (Henzelin *et al.*, 2006).

For example, the Commission for Real Property Claims of Displaced Persons and Refugees (CRPC) was established to decide claims by Bosnians seeking to re-establish their rights to property which may have been lost or adversely occupied during the 1992-1995 conflict in Bosnia & Herzegovina (Holtzmann & Kristjansdottir, 2007; Crook *et al.*, 2005). Similarly, the Kosovo Housing & Property Claims Commission (HPCC) was established to determine the rights to

non-commercial property in the post-conflict region of Kosovo (Holtzmann & Kristjansdottir, 2007).

2.2.2 Compensation

Compensation attempts to 'make good' an economically assessable situation suffered by a victim, typically through monetary payment from an accused party (Henzelin *et al.*, 2006). Although other forms of compensation are possible, "*in practice monetary compensation is likely to be the most common form*" (Henzelin *et al.*, 2006: 332).

The International Organisation on Migration (IOM) MCP offered financial compensation as reparation for victims of forced labour and property losses stemming from the actions of Nazi Germany in the years 1933-1945. The International Commission on Holocaust Era Insurance Claims (ICHEIC) offered compensation of USD\$1,000 to claimants who could demonstrate a 'likelihood' that they had links to an insurance policy which may have covered the destructive events of World War II (Holtzmann & Kristjansdottir, 2007).

Businesses can also be considered fit to receive compensation for losses resulting from acts of government (EC, 2003), conflict (Carrillo & Palmer, 2010), and natural disasters (IOPC, 2016).

2.2.3 Rehabilitation

Rehabilitation is not as clearly defined. It is intended for those situations where 'peace-building or socio-economic' programmes are put in place to enhance regional recovery from the conflict (Henzelin *et al.*, 2006: 332). Rehabilitation may also assist individuals in attempts to reintegrate into society through educational, medical, psychological, legal, or social services. (Niebergall, 2009).

2.3 Creating the MCP

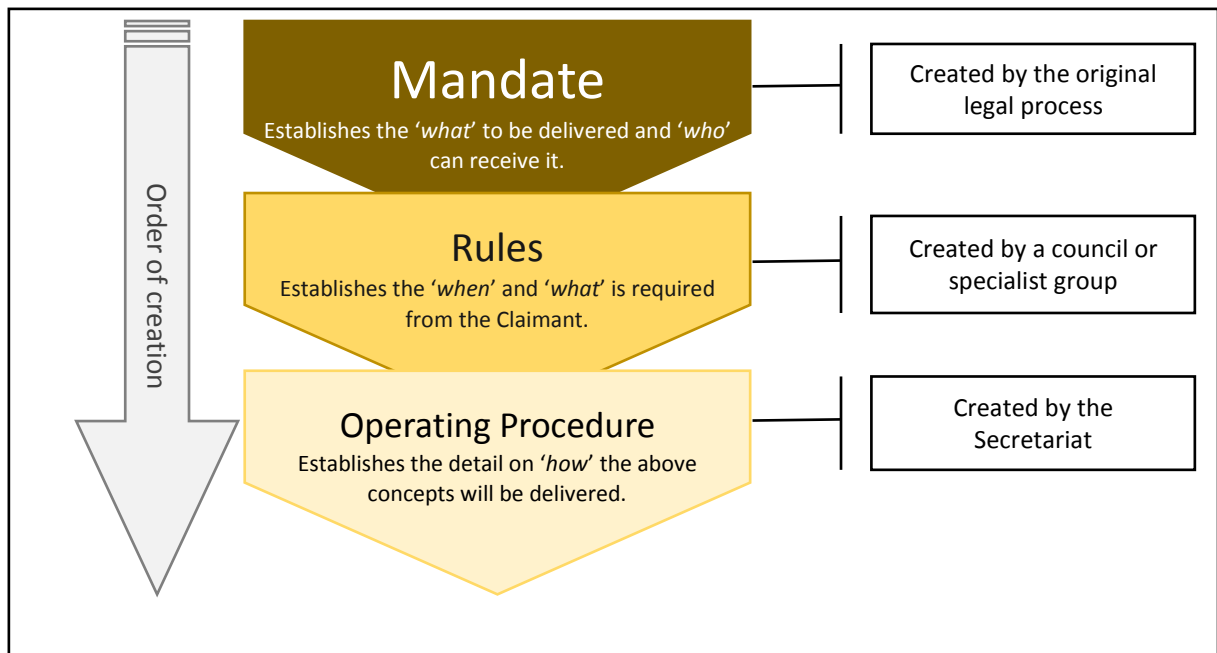
The legal action which considers the assistance or reparation types listed above, generally also creates the 'mandate' which very generally describes '*what*' will be delivered to '*who*.' An example mandate from the Commission for Real Property Claims of Displaced Persons and Refugees (CRPC) in Bosnia and Herzegovina:

"The Commission shall receive and decide any claims for real property in Bosnia and Herzegovina, where the property has not voluntarily been sold or otherwise transferred since April 1, 1992, and where the claimant does not now enjoy possession of that property. Claims may be for return of the property or for just compensation in lieu of return." (Wühler & Niebergall, 2008: 16)

By design, this mandate does not comment on how it is to be carried out or realised. The mandate is the foundation for the creation of a set of provisional rules for claims procedure (Wühler, 1999). These rules generally describe the entire cycle of claims processing, *"from the time of filing the claim up to the decision by the Governing Council on the amount of recommended compensation"* (Wühler, 1999: 263).

A significant consideration in the mandate is the dichotomy between accuracy and efficiency of the MCP. This manifests as the choice on how 'rough' the rough justice will be, which has impacts on the creation of the rule set used to govern the process. As the largest (by volume) of the MCPs to date, the UNCC (see Table 2.1 - Impact from Mass Claims Processes, above) required a rule set which promoted the overarching goal of practical justice that was swift and efficient, and yet not overly rough to claimants' interests. The rules for the UNCC were created to embrace the use of methods and techniques for processing large quantities of claims (Wühler, 1999).

Figure 2.1 – Source of design influence on Operating Procedure in MCPs



Once the rules are established, an operational group called a '*secretariat*' is employed to develop standard operating procedures which adhere to "*the rules for its internal practice,*" and "*provide detailed guidelines on how they (the various internal operational units) are to perform their respective tasks*" (Wühler, 1999: 263).

Most importantly, the procedural rules contain the manifestation of the strategic decision which determines the balance between accuracy and efficiency for the organisation. The order in which each of the elements is created is depicted in Figure 2.1 above.

2.3.1 Competing Goals: Accuracy & Efficiency

As described above, MCPs are created out of a need to restore claimant losses stemming from a particular event. Once the need is established, claimants often use the MCP to achieve a sense of justice. One way to do this is through the simple act of filing a claim. This act can be "*cleansing, a release and a forgiving of the past, and an opportunity to have a new and honourable beginning*" (Alford, 2000: 165).

From the organisation's perspective, the delivery of the catharsis of justice is a very different, much more difficult challenge. The sheer volume of claims

makes individual attention nearly impossible, and it forces the stakeholders of the MCP to weigh the interests of the individual against the need to resolve the high volume of claims in a reasonable amount of time (Carrillo & Palmer, 2010; Wühler & Niebergall, 2008).

"It is very difficult for many to accept this, but rough justice is inevitable in mass claims. The only question is, how rough? How can one maximize justice for the available money?" (Karrer, 2005: 467)

This conflict sits at the core of each MCP, acting as a challenge to the designers of the delivery system. MCPs must strike a balance between the interests of the individual and the interests of the community of claimants. Operationally, MCPs must exhibit a *"rigid flexibility"* on the rules of the process (Holtzmann & Kristjansdottir, 2007: 46) which allows claims processing to adapt to the changes presented during operation. Fraudulent claims present a challenge to the careful balance needed for the governing rules. Rules need to be rigid enough to identify and reject fraud, while still remaining relaxed enough to be *"claimant friendly"* (Wühler & Niebergall, 2008: 4).

Each of the example programmes listed above faced high expectations from the community of applicants, and strong political pressure to ensure speedy and efficient delivery of results for the benefit of the stakeholders financing the organisation (Wühler & Niebergall, 2008).

A general agreement exists in the literature on these conflicting goals.

- *"a tension between individual justice and fairness, and an expedient, timely process"* (Wühler, 1999: 256)
- *"a unique challenge to balance between the conflicting demands of: speed and efficiency, and fairness and due process"* (van den Hout in PCA, 2006: from the forward xxxix)
- *"a recurring tension between timely claims processing at an acceptable cost and individual assessment"* (Crook et al., 2005)

Whilst clearly acknowledging the need for judicial accuracy inherent in legal processes, efficiency emerges as the priority of several studies. Carrillo & Palmer (2010: 394) observed that the performance of many MCPs was judged “*clearly on efficiency*”. A separate overview of performance in MCPs states that the organisations are typically judged on whether they meet procedural goals on speed of process, cost effectiveness, and consistency in the handling of claims and decision making (van den Hout, in Holtzmann & Kristjansdottir, 2007). Put succinctly, “*quantity rules quality*” (Crook *et al.*, 2005: 81).

The method by which the organisation achieves these strategic goals is described by the rules which govern the claims treatment process. The following section considers how these rules are created and their effect on the creation of the delivery system.

2.3.2 Evidentiary standard

The evidentiary standard in MCPs is the level to which the claimant is required to prove, or substantiate their claim. Evidentiary standard is related to the concept of ‘*burden of proof*’ which is described as “*the obligation to prove or the necessity of affirmatively proving a fact or facts in dispute*” (Niebergall, 2009: 151). This standard can be very high, such as the standard set in the U.S.–Iran Claims Tribunal, which required “*clear and convincing evidence*” (Alford, 2000: 163). Alternatively, the standard can be very low, such as the standard set in the Claims Resolution Tribunal for victims of Nazi persecution (CRT), which requested only that claimants show ‘*plausibility*’ (Alford, 2000; Carrillo & Palmer, 2010).

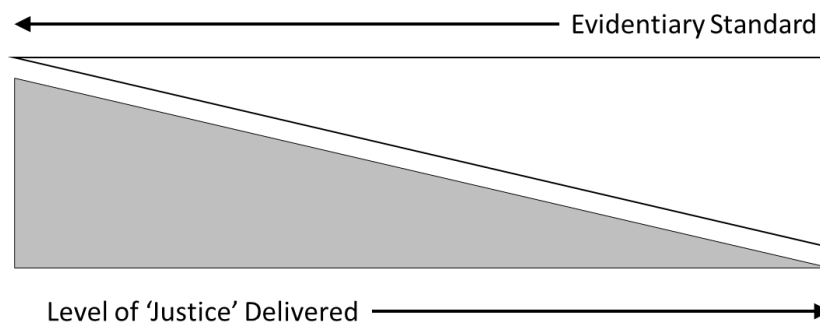
The level of evidentiary standard is established in the procedural rules, and is influenced by the circumstances which led to the creation of the MCP. Those MCPs which award reparations arising from wars and other destructive conflicts may find it difficult for claimants to supply official documents from that period, as they may have been destroyed in the conflict. This would lead to a relaxed evidentiary standard. A carefully chosen point of balance is required with relaxed standards, because the standard must also be restrictive enough to prevent a flood of irrelevant or fraudulent claims (Henzelin *et al.*, 2006).

To determine the evidentiary standard, the following questions should be addressed at the outset of the MCP (Niebergall, 2009: 165):

- *What types of evidence are available, and can be reasonably expected?*
- *What types of external records are available to supplement or verify submitted data?*
- *How many claims are to be expected to be submitted?*

The answers to these questions inform the final position on the evidentiary standard. As discussed above, this decision has significant influence on process design, because the evidentiary standard is “*one of the variables which affects process delivery, which has interlinked effects with resource consumption, and time per case*” (Karrer, 2005: 470).

Figure 2.2 – Correlation of Evidentiary Standard with Level of ‘Justice’ Delivered



A high evidentiary standard typically correlates with the delivery of higher levels of ‘justice’, while a low evidentiary standard correlates with the delivery of ‘rough justice’. This is illustrated in Figure 2.2 above.

2.3.3 Funding models – Single Pot vs Bottom-Up

One of the potential approaches where financial compensation is given to claimants is the “*single pot*” funding model (Holtzmann & Kristjansdottir, 2007; Karrer, 2005; McGovern, 2006). The single pot describes a pre-determined sum, usually decided by the legal debate surrounding the issue, which is to be equally distributed to successful claimants. Single-pot schemes are, by definition, limited to the amount in the pot. The alternative funding option is “*bottom-up*” which is the *post hoc* summation of all the individual successful

claim payments (McGovern, 2006: 1364). Bottom-up schemes may not have a limit in funds to be distributed; or they may be vastly over-funded so as to ensure complete payment to successful claims and have a residual amount at the end of the process.

When a limited set/pot of funds are available, a decision must be incorporated into the rules on how those funds will be awarded. Options chosen in past MCPs include a pre-determined payment value, or *pro rata* distribution among successful claims (Holtzmann & Kristjansdottir, 2007; Karrer, 2005). *Pro rata* payments ensure that the sum total of payments does not exceed the amount in the single pot. However, this option also means that payment value is determined by the total number of successful claims, which can only be determined after the entire body of claims is processed. This option results in claimants waiting the longest period before any payment is rendered.

The choice of paying pre-determined payment values to successful claims as they are processed creates a risk that the amount paid to claimants may exceed the amount in the single pot (Karrer, 2005). In this situation, payments can be subjected to a *pro rata* reduction.

These scenarios are all illustrated in Table 2.2, on the following page.

Table 2.2 - Single Pot Payment Scenarios

Single Pot Options			
Given: number of successful claimants = n , amount in single pot = X			
	Scenario	Resultant Outcome	Impact to Process
Pre-Determined payment value = v	$n*v < X$	Residual funds in pot	Cautionary approach would lead to capped payments, to ensure residual funds. Means claimants might get less than in the post-hoc scenario.
	$n*v > X$	<i>Post hoc</i> deduction in payment from predetermined value = $((n*v)-X)/n$	Potential to run out of money leads to claimant prioritisation by category; capped payments
<i>Post hoc</i> division	X/n	<i>Pro rata</i> distribution to each successful claim	Adjustments to the payment schedule; all paid at the end of processing entire body of claims

Several cases are used as examples in the literature to illustrate problems related to these funding approaches.

“The International Organisation for Migration (IOM) was proven to be underfunded, leading to a pro-rata payment which was reduced by the number of successful claims; a set of certain types of claims were paid, but when funds ran out, no claims were paid. Claims for personal injury in lower priority claims were not paid due to lack of funds; also the amount per compensated claim was capped based on the total funds available.” (Holtzmann & Kristjansdottir, 2007: 138)

Similarly, at the UNCC:

"From the Commission's inception, it was anticipated that the value of approved awards would exceed the resources

available in the Compensation Fund at any given time."

(Wühler, 1999: 268)

These examples show how these choices have significant impacts on the MCP. The possibility of running out of funds has led to payment caps, prioritisation of certain claimants, and adjustments to payment schedules. Each possibility must be considered in designing the claims treatment process. However, this connection between the funding model and design of an efficient delivery system does not appear in the literature. Pre-determined payment values can easily lead to payment adjustments which consume organisational resource, and appear to rate consideration in delivery system design.

2.4 Operational Considerations

This section will discuss various operational considerations in mass claims processes. This includes: the higher-level guiding principles which affect design; the design of the process; the use of IT to facilitate mass claims processing; and the effect of changes during the operation of a mass claims process.

2.4.1 The Guiding Principles of Mass Claims Processes

The unique nature of each MCP means the rules and the operational structures must be created to face a unique set of challenges (Wühler & Niebergall, 2008) which reconcile the requirement of justice and swift due process in the face of the enormous volume of claims (Holtzmann & Kristjansdottir, 2007; PCA, 2006). Operationally, these goals require the MCP to accomplish its goal in the shortest possible amount of time and at a lower cost than "*ordinary dispute resolution systems*" (Das, in PCA, 2006: 5).

Experience in multiple MCPs led one author to summarise these considerations that influence process design:

"At the various stages of the claims processing, several or all of the following questions usually have to be addressed in one way or another: ... to what degree is the claimant and the respondent involved in the procedure; how much is the process a documents-only process; ... what are the evidentiary standards and rules; what valuation methods

are used, ... what role does modern information technology and, in particular, database support play?"
(Wühler, 1999: 267)

The considerations for delivery system design presented in this literature are discussed in the following sections. However, a distinction must be made between the entities that influence the design of delivery system, and those that implement the delivery system.

2.4.2 Designing the Process

The day-to-day operating procedure of how the claims process will function is the responsibility of an organisational body, typically called a Secretariat. As discussed above and depicted in Figure 2.1, the Secretariat is formed after the creation of both the mandate establishing the MCP, and the rules governing its operation. The Secretariat is charged with delivering the mandate, as guided by the rules. Among the duties of the Secretariat is to establish the detail on how to achieve the directives established in the mandate.

The literature describing the Secretariat is limited, but it emphasises the Secretariat's goals of providing task organisation as well as the development and maintenance of the necessary infrastructure (Wühler & Niebergall, 2008; Henzelin *et al.*, 2006). Once these organisational decisions are made, the Secretariat also carries out the claim treatment process (Henzelin *et al.*, 2006; Wühler & Niebergall, 2008).

The Secretariat is responsible for the operational area of the organisation. Thus, the Secretariat is the logical focus for the application of operations management principles.

2.4.3 Best Practice Model

Attempts at creating a 'best practice' or 'one size fits all' model for MCPs are largely dismissed within the MCP literature. Several authors cite how this approach is inappropriate due to the contextual factors which cause delivery system design to vary widely (Carrillo & Palmer, 2010; PCA, 2006; Raboin *et al.*, 2005; Wühler & Niebergall, 2008). These papers identify a common set of component parts found in MCPs.

The general steps are:

- Collecting data via claim form
- An eligibility-determining initial screening process
- A process of collecting and evaluating evidence
- Quality control
- Appeals processes

These steps are discussed in greater detail in section 2.4.4 below.

The nearest thing to a ‘best practice’ model exists in the form of a checklist developed for the purpose of informing potential developers of MCPs (Carrillo & Palmer, 2010: 427). The checklist (which appears in Appendix A - Checklist for Transnational Mass Claims Processes (TMCP)) draws together the experiences of multiple past MCPs into a single list of necessary considerations to inform design of new MCPs. No advice is offered on process design. They simply present a set of common considerations for the establishment of rules guiding the MCP.

More generally, a review of lessons learned from completed MCPs led to observations which speak directly to process design. Wühler & Niebergall (2008: 42), in a comprehensive review of MCPs, state that the “*more standardised a decision-making process is, the more it is possible to save time and costs*” by using lesser-skilled, lower-cost resource for high volume claim review. This focuses the use of the higher-skilled, higher-cost resources (such as senior lawyers and judges) on reviewing samples of decisions as a quality assurance exercise. The degree of standardisation of the decision-making process is a choice that must be made by the guiding council/specialist group. There are parallels in this analysis to the work on classifications of delivery systems, which will be discussed in chapter three.

From a broader perspective, despite evidence that MCPs impact a high volume of people around the world, and are associated with enormous financial investments, limited work has been undertaken to determine design principles.

2.4.4 General procedural steps

While the literature is clear in describing how each MCP mandate and rules are unique, there are some similarities to be found in the processes examined.

2.4.4.1 Collecting Data via the Claim Form

The importance of the claim form is emphasised, specifically because all the data required for the MCP decision should be submitted with the claim form. In the interest of efficiency, after the claim is submitted “*there are normally no further exchanges with claimants*” (Karrer, 2005: 469). Any additional contact with the claimants after the form is submitted has two important ramifications. First, the claim can no longer be handled by automated processes. The need for contact is prompted by the lack of sufficient information in the claim. The information contained in the claim must now be assessed and what is lacking must be identified for how it might impact the treatment process.

Second, as a result of the customised nature of the interaction, the contact must be managed by a worker trained for those specific steps of the process. As a result, the manual work consumes organisational resource and prolongs the process, making the claimant wait longer.

In order to avoid these scenarios, the completed and submitted claim form must contain all the information necessary to make a final decision. This places a great deal of importance on the design of the form and the initial check of the quality of the submitted information it contains. If the submitted claim form does not contain the information needed to render decisions this will cause delays in later stages of the process, as the organisation could be forced to request relevant information from the entire body of claimants (Holtzmann & Kristjansdottir, 2007).

Once completed and submitted, the information provided by the claimant and contained on claim form is critical to the next stages of the process.

2.4.4.2 Eligibility Determination/Initial Screening

This step is intended to reject those claims which fall outside the boundaries of eligibility set by the rules on which claims are allowed into the process. More generally, this step of the process ensures the claimant is eligible under the

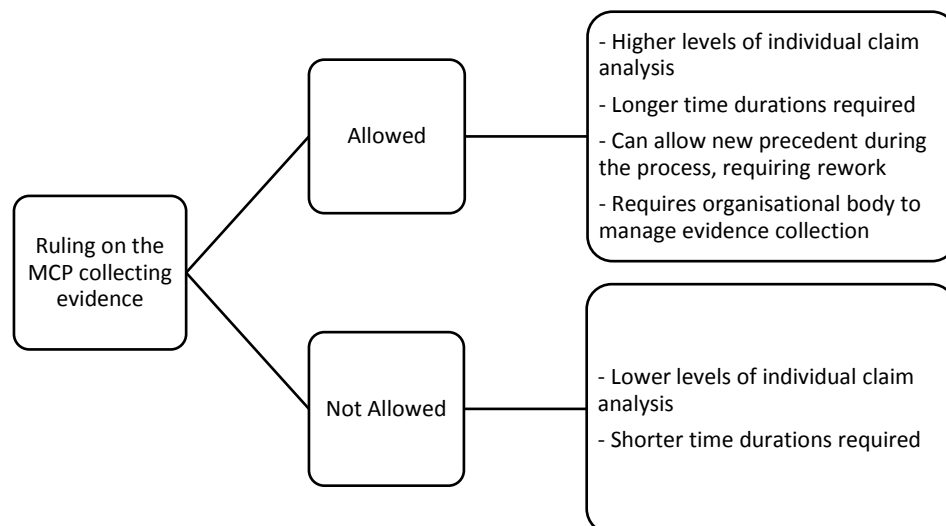
definition set in the mandate (and more clearly described in the rules); and that there is a complete set of information contained in the claim for processing (Carrillo & Palmer, 2010; Crook *et al.*, 2005; Holtzmann & Kristjansdottir, 2007; Wühler, 1999; Wühler & Niebergall, 2008). Those claims which are not considered eligible are rejected; the claims which are incomplete can either be rejected or returned with a request for the additional information.

Once eligibility is confirmed, the information in the claim must be evaluated before a final decision can be made.

2.4.4.3 Additional Collection & Evaluation of Evidence

The goal of this step is to produce a decision on what the individual claimant is entitled to receive in light of the evidence presented. To provide support for the decision, the claim must produce relevant evidence. In some cases, the claim may lack evidence, or the person treating the claim may determine that additional evidence is needed to complete the evaluation. If the rules allow, the MCP might request additional evidence from the claimant, or independently collect evidence for use in the analysis of a claim.

Figure 2.3 - Considerations for the collection of additional evidence



Evidence collected for use in the process has consisted of land registers, historical archives, and bank records (Holtzmann & Kristjansdottir, 2007). This information is used for the “*purposes of efficiency in verification*” (Carrillo & Palmer, 2010: 419), verifying the evidence presented by the claimant. If the

rules allow the MCP to collect evidence for verification, there are effects to consider, as shown in Figure 2.3.

Once sufficient evidence exists to perform the evaluation, a decision is rendered for that claim. The skill level of the worker performing the evaluation and rendering the decision is part of the choices made within the rules governing the process. Highly-skilled workers are required when the decision is based on worker discretion (discussed in section 2.5.3). Decisions which require no worker discretion can be automated or performed by a lower-skilled worker (discussed in section 2.5.4).

2.4.4.4 Quality Control

Past MCPs have varied in their inclusion of a quality control process step. Quality control reviews of claims provide consistency and accuracy in decisions through the use of a sampling technique to check the consistency of decisions (Wühler & Niebergall, 2008). The consequence of a quality control step is the consumption of skilled resource tasked with remaining abreast of other decisions being made in the process, and how those decisions may affect other claims. Additionally, the quality control stage delays the time required to process both a single claim, and the entire set of claims, to completion. Thus, consideration of the inclusion of a quality control process step is a reminder of the trade-off between accuracy and efficiency.

2.4.4.5 Appeal Process

Appeals processes provide claimants a formal option to request an additional review of the claim, where the reasons for the appeal are considered alongside the original claim information. These processes are not mandatory, and as such they only appear in a selection of past MCPs. Those MCPs rejecting an appeals process usually clearly outline that choice in the rules. Where an appeals process is incorporated into the MCP, it is very tightly limited and strictly defined about what cases have the right to appeal (Karrer, 2005).

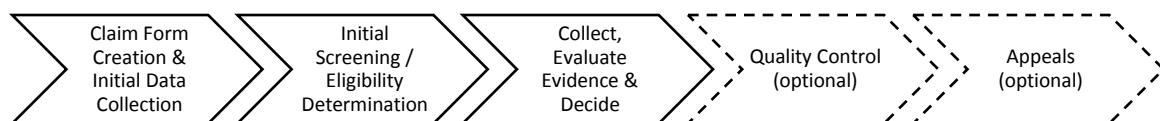
The decision to include a resource consuming appeals process is subject to the same trade-off as the inclusion of quality control. Inclusion of an appeals

process provides the claimant another avenue to due process, but slows down the overall completion of the claims process.

2.4.4.6 Representation of the process

From the descriptions above of the generalised stages of claim treatment found in the literature, a representation of the process can be created. This generalised process is presented in the following model:

Figure 2.4 - Representation of a generalised MCP drawn from the literature



The representation takes a linear form, but recursion is possible from both the ‘Quality Control’ and ‘Appeals’ steps, back to the step of ‘Collect, Evaluate Evidence & Decide’ for an additional evaluation. The MCP literature illustrates the first three steps of a representative generalised process for the operation of any MCP. As a result, this research focuses on the first three steps of this process model.

2.5 Considerations for process design

The literature discusses several factors which both influence, and are influenced by process design. These factors can either be drivers for a particular process design, or they are considerations to be made after a choice has been made on process design. While these considerations are discussed in the extant MCP literature, it was observed above that, overall, limited work exists which discusses delivery system design principles.

2.5.1 Heterogeneity of Processes

Observations from past MCPs have shown that when reviewing a single case, the unique nature of the details of the case (such as the state of the claimant and/or their property considered against the changing contextual factors at a particular point in time) cause the procedure to become “*so individualised that*

the rules are of little help" (Karrer, 2005: 469). This suggests that standardised procedure is only applicable up to the point where individual details of the case are reviewed by staff.

The review of the details of an individual case can also uncover details which make that case even more difficult to process. Such a review may discover that the individual claim can no longer be treated as a discrete entity to be passed through the system as swiftly and efficiently as possible. In the Claims Resolution Tribunal for Dormant Accounts in Switzerland (CRT) over 40,000 claims were received from the heirs of bank account owners who were likely victims of Nazi persecution (CRT, 2010). It was common for several claimants to be linked to a single dormant account once analysis began (Alford, 2000; Carrillo & Palmer, 2010; Holtzmann & Kristjansdottir, 2007; Wühler & Niebergall, 2008). This required skilled attorneys to judge the individual merits of each of the connected claims before making a decision awarding of account contents to any single claim in the group.

This dynamic illustrates the unique nature of each claim once the review of the individual details of the claim are considered by processors. What may have been a simple, formulaic approach becomes a more complicated scenario which requires a critical, highly-skilled, detailed analysis before a claim can be processed to completion.

2.5.2 Standardised valuation methods

While the previous section discusses heterogeneity in claim processing, the MCP literature also presents methods which can be employed when higher levels of homogeneity are present in claims to be processed. The more homogeneous the claims, the more standardised methods can be applied to that entire body of similar claims.

One such approach is the use of standardised valuation methods, which involves placing claims into groups determined by similarities in claim characteristics. These groups are given standardised valuations rather than attempting to determine precise measurements (Niebergall, 2009). Using standardised valuation levels allows claims processors to quickly link a claim

characteristic type with a standard payment. This avoids in-depth examination of claim details to determine output decision and valuation. A precise examination and valuation is time consuming and requires both highly-skilled workers and higher evidentiary levels.

An example of this method is the 'lump sum' payment distributed by the German Forced Labour Compensation (GFLC) programme. This MCP was established to provide financial restitution to victims (or victim's heirs) of forced labour programs in the Second World War. In this case, claimants were not asked to substantiate the loss and there was no precise valuation made from the MCP because every claimant who proved plausible eligibility was awarded the same standardised reparation amount. While this method contributes to the efficiency of the MCP, the perception of '*justice*' experienced by the claimant may not be sufficient (Niebergall, 2009).

Once again, the implementation of this '*rough justice*' approach is determined in the procedural rules and has influence on process design through the ability to use lower skilled, lower cost workers.

2.5.3 Fixed Rules or Employee Discretion

The rules guiding the process must make a choice between:

- a claims process which allows employees the discretion to make decisions
- or a process which enforces a rigid set of rules.

This choice has several ramifications, as illustrated by Holtzmann & Kristjansdottir (2007). Processes designed utilising the discretion of workers at decision points, then require the appropriate number of skilled decision-makers to maintain optimal performance against measures of timeliness. Considering the enormous number of claims, this could be a very expensive option if the processing time frame is short. This choice also has impacts on the desired levels of fairness for each claimant. A large number of skilled decision-makers must all be kept abreast of recent decisions which may affect their future decisions. This requires a great deal of communication and a centralised body which both organises and coordinates that communication.

Conversely, the choice of a rigid set of rules is conducive to speeding up the decision-making process, and reducing the cost of processing through the use of less skilled resource. This is also “*the only feasible alternative where a number of different decision-makers have to resolve very large numbers of claims in a consistent manner*” (Holtzmann & Kristjansdottir, 2007: 129). The use of a rigid set of rules is more conducive to ensuring fair decision-making amongst all claimants.

However, this choice is very limiting if unforeseen circumstances arise which cannot be managed by the rigid rules in place. Changing rigid guidelines, while possible, creates an even more complicated situation when attempting to apply changes retroactively to claims already processed.

Retrospective changes damage the process in several ways. These changes have the ability to affect any of the claims already processed to completion and paid, thus rendering the initial decision and payment inaccurate. Additionally, such changes “*undermine perception of fairness and negatively impact credibility*” (Carrillo & Palmer, 2010: 415).

Considering this, the emphasis for operational design is to avoid any actions which may lead to changes in the processing rules while the MCP is underway.

2.5.4 Skill levels of workers

This research focuses on those who work directly with claims and information submitted from claimants. Therefore, workers who perform supporting tasks, such as HR or facilities management, are not the focus of this research and will not be analysed here. As described in section 2.4.2, above, the processing work is performed by the Secretariat, which is comprised of many different types of workers with different skill levels.

The cases reflected in the literature show similarities in the descriptions of the worker skill levels required. The skills reflect a general hierarchy consisting of three observed levels. These skill levels are illustrated using descriptions provided by the authors:

- The first level is generally described as a body of highly-qualified and highly-skilled workers with experience in MCPs. They are charged with overseeing the process, performing quality control, rendering decisions, and ensuring fairness and continuity in decisions made (Holtzmann & Kristjansdottir, 2007; Karrer, 2005). This group is also described as being responsible for potential adjustments to the rules and the operating processes (Holtzmann & Kristjansdottir, 2007; PCA, 2006).
- Second, a mid-skill level of qualified specialists in the relevant field. These workers may or may not have experience in past MCPs. For processes with an international claimant base, these workers must have “*superior linguistic skills*” (Karrer, 2005: 467). One study describes this level of worker as one who is capable of operating within established procedure and “*tend to be government officials operating in an administrative capacity*” (Carrillo & Palmer, 2010: 403)
- Third, a lower-skilled set of workers who can make decisions based on explicit rules or guidelines; and assist the mid-level workers by preparing cases and gathering relevant information (Wühler & Niebergall, 2008).

The responsibilities these workers carry can be juxtaposed against the sample process model from the previous section.

Figure 2.5 - Worker skill level required for process step

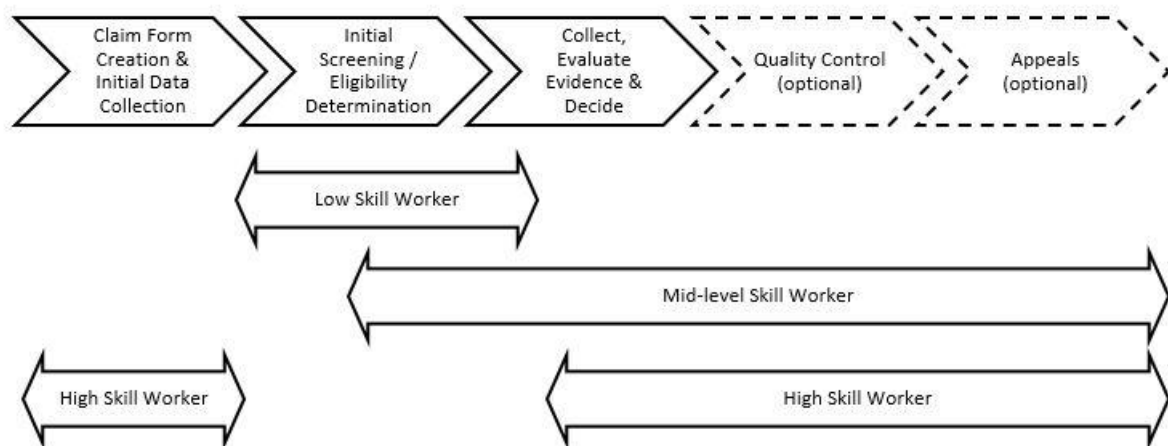


Figure 2.5, above, shows which job skill level is generally described in the literature as required for each step in the process.

2.5.5 Centralised or Decentralised structures

Designing the MCP delivery process may also consider the need for decentralised structures. The literature describes the need for some MCPs to have regional offices nearer the claimant where they are able to ask questions and receive assistance in completing and submitting claims. These offices are typically supported by a centralised location, which is considered an executive office, or a *de facto* headquarters (Wühler & Niebergall, 2008).

Examples from the literature include both the CRPC & the Kosovo Housing and Property Directorate (HPD). Each had centralised executive offices supplemented by a network of regional offices. From these regional offices, representatives of the MCP could meet with the elderly, immobile, or those simply unable to travel (Wühler & Niebergall, 2008).

These regional offices provided additional benefits for the MCP. They provided an up-front quality assurance step by advising claimants on the evidence required, and how to complete the claim form. This also removed the time-delay caused by the submission, review, and correspondence related to contacting the claimant if a claim form was incomplete or lacks evidence. Some obvious problems could be quickly detected and rectified in the regional offices before the claimant officially submitted the claim.

The choice of decentralising MCP structures increases work levels for the regionally-distributed workforce. The alternative is to keep all work centralised and not perform claim reviews before submission, and thus reviewing claims and contacting claimants when required after submission. This approach was taken in the Claim Resolution Tribunal (CRT-II) which was based entirely in Zurich, and the number of meetings with claimants were of statistical insignificance (CRT, 2012).

2.5.6 The Use of IT as a facilitation tool

The modern era of mass claims processing has been significantly influenced by the use of information technologies (IT) (Carrillo & Palmer, 2010). IT is “*the enabling factor of modern mass claims processing*” (Holtzmann & Kristjansdottir, 2007: 243), allowing the use of specialised methods and

techniques designed to process the enormously high numbers of claims in the process (Heiskanen, 2003). These methods and techniques are discussed further in section 2.5.7 below.

Many authors have emphasised the necessity of high-levels of IT implementation to facilitate past MCPs (Arbitration, 2017; Heiskanen, 2003; Henzelin et al., 2006; Holtzmann & Kristjansdottir, 2007; Karrer, 2005). At least one author sees IT as a panacea for MCPs, saying “*one must computerize whatever one can*” (Karrer, 2005: 468).

Others emphasise the value of using IT to facilitate the management of the process, as well as to make decisions instead of human workers (Heiskanen, 2003). Management of the process, as described by Heiskanen, consists of large scale data entry and the use of specialised algorithms which consider the claim’s contextual factors. The computerised process would then generate focused work for human workers. Computer-aided decision making is suggested as an alternative for “*very simple claims involving fixed amounts of compensation*” (Heiskanen, 2003: 67). However, the importance of skilled workers to work alongside the IT is emphasised.

“A claim form, even well designed and properly filled out, does not tell the whole story. One cannot enter everything in a claim file into a database and use it to decide cases. Staff members must actively take the case into their hands.” (Karrer, 2005: 468)

This statement assumes a set of rules governing the MCP which require at least one human-performed analytical step. From the literature, there are no examples of MCPs which were fully automated.

2.5.7 Treatment techniques

The literature on mass claims processes presents discussion on several ways of increasing the speed of decision-making, while ensuring that decisions remain within the legal boundaries set by the mandate.

'Matching' is employed in situations where claim data must be compared to a secondary set of data to identify similarities. The secondary set of data is typically collected from historical archives, property registers, bank records, etc. (Carrillo & Palmer, 2010; Holtzmann & Kristjansdottir, 2007). This secondary data is analysed and compared to claim data by computerised systems, and matches between the two data sets are generated. These matches "*either provided sufficient grounds for an award of compensation, or provided a basis for additional research to confirm the match*" (Carrillo & Palmer, 2010: 420). This has the effect of completely automating the decision-generation process, and/or producing matches which must be confirmed by a human worker.

In the CRT, this method of data comparison generated a large volume of matches, each of which had to be validated or disconfirmed (Holtzmann & Kristjansdottir, 2007). IT systems compared the name and details of a historic account owner (provided by a claimant) to name and details held in bank records. The volume of matches produced was very high because the rules on matching were set to be overly-inclusive, looking for 'fuzzy' matches as well as exact matches. This 'rough' approach meant there were fewer conditions for exclusion for the computerised system to employ, thus creating a larger and more inclusive end set of potential matches. While this reduced the potential of accidentally excluding a viable claim, each additional match had to be examined to confirm or deny that match.

'Batching' is a technique whereby the same summary decision is applied to a group of similar claims: a batch. In most MCPs, highly routine claims are the most likely candidates for the use of *Batching*. This approach assumes that these routine claims have a level of homogeneity in a batch which allows for the sweeping decision to be applied to the entire batch. This technique is stated to be highly suitable for limited-time and large-volume situations (Wühler & Niebergall, 2008).

'Grouping' is described as being particularly appropriate for complex or overly large claim sets. The technique can be very effective when employed at the outset of claim processing, similar to a medical triage, where claims are grouped by the similarity of the challenge they present (Holtzmann &

Kristjansdottir, 2007). Grouping is useful when the issue is resolved and a precedent is set, the precedent can then be applied to the members of the group (or later claims with the same issue) (Carrillo & Palmer, 2010; Heiskanen, 2003; Holtzmann & Kristjansdottir, 2007).

'Standardised verification & valuation' reduces the time and expense of thoroughly reviewing and verifying individual claims by applying standard values to similar types (or groups) of claims. This approach may also facilitate decision-making in post-conflict zones, where it is common to see evidentiary gaps resulting from the destruction linked to the conflict (Carrillo & Palmer, 2010).

Overall, the use of these methods and techniques must align with the guiding organisational strategy on efficiency or effectiveness, and the rules which govern claims processing.

2.5.8 The Effect of Rule Changes

The literature contains a general agreement that all of the above methods, techniques, and process design considerations require stability in the rules regarding the creation of decisions. Changes to the rules or the methods by which claims are processed can undermine the perception of equality and fairness, thus damaging the MCPs credibility with claimants and stakeholders. This is not insignificant, as fairness and strong credibility are the *"hallmarks of any successful claims process ... essential to fairness is the principle of non-discrimination"* (Carrillo & Palmer, 2010: 415). Operationally, it has been observed that the retroactive application of changes to rules or methods once claims processing has begun, may *"undermine confidence in its stability"* (Holtzmann & Kristjansdottir, 2007: 129) due to the rework required to apply changes to completed, or partially completed claims.

An illustrative example can be drawn from the CRT, where significant amendments were made to the rules governing the process, as well as to the methods employed to process claims (Holtzmann & Kristjansdottir, 2007). The rules defining eligibility were made to be more inclusive, which had two significant effects. First, the claims which were initially determined to be

ineligible for certain factors had to be re-examined under the new rules; creating a large quantity of re-work. Second, a new set of data was determined to be eligible for use under the newly-changed rules, which allowed over 40,000 claims to be entered into the process.

The new set of claims created new matches, some of the new matches were linked to claims which were previously processed to completion. These new matches forced those claims to be drawn back into the process (Holtzmann & Kristjansdottir, 2007). In some cases, payments had to be reduced and money repaid to the MCP. Further damage to the credibility of the process was suffered when those claimants had to be informed that their claim was again under examination; after having previously been told that their claim was closed (with either a payment or a denial notice sent).

In a second example, the International Organization on Migration (IOM) adjusted its policy about paying claims as soon as they were complete when it was determined that the pot of funds for payments was not large enough to pay the number of successful claims (Holtzmann & Kristjansdottir, 2007). A pre-determined amount for successful claims was set at the start of the process. Processing began and payments were made before the entire population of claims were complete. The number of payments was underestimated and as a result, compensation payments had to be reduced.

It is clear from the literature that stability in the process rules and methods is highly desirable. This places more importance on ensuring the operational design decisions meet the goals set by the mandate and the rules governing the process.

2.6 Summary and Conclusions

This section summarises the main points of the literature on the design of the delivery systems of Mass Claims Processes. Areas of this literature are highlighted as lacking meaningful insight to delivery system design for MCPs.

MCPs have significant economic impact, measuring into the tens of billions of US dollars. These processes attempt to provide timely due process to millions of people who deserve assistance or reparations as a result of armed conflict or

a legal/political decision. On the surface, MCPs bear some resemblance to large scale insurance claims processes but it was shown that MCPs require a different operational approach because MCPs do not need to determine legal liability and focus only on entitlement to reparations.

The legal processes which create MCPs use the mandate to define '*who*' is eligible for assistance or reparations and '*what*' they will receive. This mandate does not comment on the establishment or characteristics of the process which delivers the legal outcome to the claimant. From the mandate, a set of rules which guide the process is created. It is this set of rules which informs the design of the claims treatment process.

The unique set of contextual factors related to each MCP suggests that no best practice model can be created. However, a set of common component parts has been identified: collecting data via a claim form; an eligibility determination/initial screening step; and the step of collecting additional evidence and evaluating the claim. Two additional steps of Quality Control and Appeals were also noted, but are considered to be outside the focus of this research.

In establishing the delivery system, the MCP faces a tension from competing goals on accuracy and efficiency. In this context, accuracy implies a high degree of attention is paid to each claim in an attempt to achieve accurate outputs and deliver 'justice' for the claimant. Efficiency in this literature is described as the need to be as expedient as possible in processing all the submitted claims to reduce operational costs. In the examples shown in the review of the literature which draw on past completed MCPs, optimal performance where both organisational goals are simultaneously achieved has not been observed.

In considering the factors influencing delivery system design in Mass Claims Processes, the decision which appears to have the greatest influence on design is the balance between accuracy and efficiency. The organisational position on this balance is generally illustrated through several positions on the evidentiary standard and the funding model. These two concepts are described either in

the mandate or in the rules governing the process; both provide a description of the restitution the claimant will receive.

The evidentiary standard describes the level to which the claimant is required to prove, or substantiate their claim. With a high standard, the claimant must provide clear and convincing evidence to support the claim; while a low standard will consider plausible evidence in support of the claim. This is linked to the perception of 'justice' delivered to the claimant; clear and convincing evidence correlates with high levels of justice, while plausible evidence correlates to 'rough justice'.

The following considerations for design of the delivery system highlighted for this research are required to align to the decisions on accuracy and efficiency to support an optimised delivery system.

In some cases, MCPs can have a 'single pot' limited-funds model whereby all successful claims divide the pot equally. In other cases, payments to successful claims draw from a fund at the point when the claim is completed. The literature presents examples where the funding sources are limited and (in very rare cases) unlimited. The funding model has direct impacts on process design, especially around when payments will be made. Here again, the trade-off between accuracy/due process and rough justice/judicial expediency appears. In limited-funding models, making payments before the entire set of claims is complete may result in inaccurate payments; while waiting for all the claims to be completed may make the process too slow.

These observations show that the decisions on evidentiary standard and the funding model describe the output to be produced for the claimant. It is then left to the Secretariat to design and construct a delivery system which can produce the output for the claimant.

A set of characteristics of delivery system design has been identified in this literature, and is presented in Table 2.3 below.

Table 2.3 - Design considerations for Mass Claims Processes

Characteristic	Author	Section
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Fixed rules vs. Employee discretion	Holtzmann & Kristjansdottir (2007)	Section 2.5.3
Heterogeneity of processes	Karrer (2005)	Section 2.5.1
Degree of standardisation of valuation method	Niebergall (2009)	Section 2.5.2
Worker skill level	Holtzmann & Kristjansdottir (2007) Karrer (2005) Wühler & Niebergall (2008)	Section 2.5.4
Centralised/Decentralised structure	Wühler & Niebergall (2008)	Section 2.5.5
Use of IT as a facilitation tool	Heiskanen (2003) Karrer (2005)	Section 2.5.6
Degree of standardisation of decision making method (batching & grouping techniques)	Carrillo & Palmer (2010)	Section 2.5.7

Delivery system design must consider the choice of ‘fixed rules’ or ‘employee discretion’ on claim-processing decisions. Fixed rules can result in a set of standardised decisions, which can be made with lower-cost, less-skilled workers. This has clear conceptual alignment with efficiency as a strategic goal. However, fixed rules are usually unable to cope with unforeseen circumstances and, if encountered, can result in rework of affected claims.

Alternatively, the choice of allowing high levels of employee discretion leads to the need for highly-skilled, higher-cost workers. This approach aligns with higher levels of accuracy as a strategic goal.

The level of heterogeneity of the treatment process affects the level of consideration that each claim receives. This level cannot be so high as to require individualised treatment of claims, because such a high level would negate any benefit of treating the body of claims in a single process.

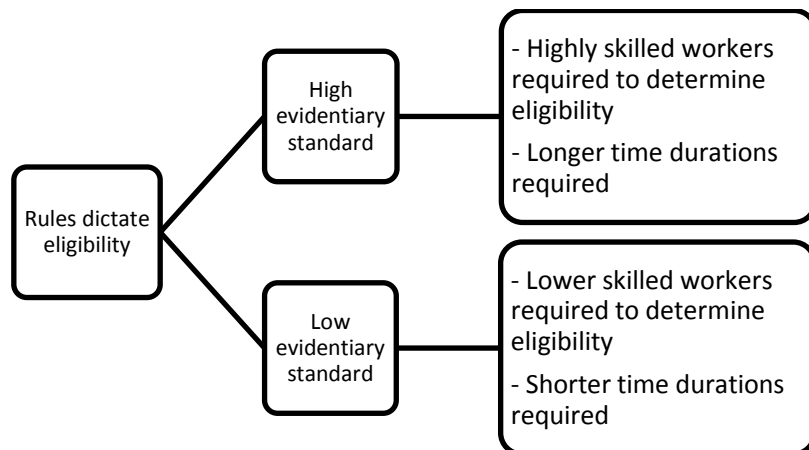
Conversely, the level of homogeneity cannot be so high as to eliminate the provision of due process for the individual. This is a higher-level choice which occurs during the rule-creation stage, and it affects decisions on standardisation levels within the claims treatment process.

The rules governing the process must also contain the decision on whether methods and techniques will be implemented for both increasing the speed of decision-making and decreasing the time and effort associated with valuation of claims.

However, standardisation measures such as these are only of limited use. Each claim will have to be, at some point in the process, evaluated by its individual characteristics. The unique characteristics of each claim require some level of individualised treatment. In this perspective, some efficiency measures must be set aside in favour of accuracy/higher provision of justice.

A correlation was identified between higher evidentiary standard and the need for more skilled workers and longer time durations for processing. Conversely, lower evidentiary standards can utilise lower-skilled workers and shorter time durations. The relationship is illustrated in Figure 2.6, below. This decision has an impact on the operating costs of the MCP, in that there is a direct correlation between operating cost and the combination of skill of the worker and duration of the process.

Figure 2.6 – Eligibility considerations with evidentiary standard



With extremely large sets of data and potentially millions of claimants, the use of IT is unavoidable in order to cope with the volume presented in MCPs. The literature is clear in supporting the use of IT as a means of automating where possible. The degree to which automation is utilised is a design choice within MCPs.

The MCP may have a centralised or de-centralised structure. With a de-centralised structure with multiple offices nearer to dispersed populations of claimants, there is greater possibility for contact between the organisation and the claimants. A centralised structure, or singular office, restricts contact between the organisation and claimants.

When considered holistically, the above set of considerations determine the properties of the delivery system; but all affect- or are affected by the accuracy vs efficiency decision. Skill levels must be adjusted to accuracy demands, in that higher levels of accuracy in legal determinations require workers with significant legal training. Standardisation choices on valuation and decision-rendering are efficiency driven, which come with the choice of a lower accuracy level. Centralisation decisions are linked to accuracy levels, in that if the demand is set for high levels of accuracy then accurate data is required from the claimants. One of the means of increasing the ease of flow of more accurate data is to improve contact with claimants by having offices or contact points closer to the claimant.

This analysis shows the accuracy vs. efficiency decision is a central factor in shaping this set of design considerations for the delivery system.

2.6.1 Areas where the literature can be supplemented

Missing from this literature is discussion which further examines the nature of the inputs to the MCP, what input variety is allowed, and how the process must adjust to manage those inputs. For instance, if a process is designed to take information from a claim form which can be automatically scanned or completed online, how will handwritten inputs be dealt with? The concept of attenuation of input variety is not directly discussed and has significant implications on the alignment between customer inputs and process design.

Several authors describe the possibility of data from one claim affecting the treatment and potential end-result other claims.

- *“a published dormant account was often claimed by several claimants”*
(Wühler & Niebergall, 2008: 78)

- *“multiple unrelated claimants filed claims to the same account”* (Carrillo & Palmer, 2010: 388) speaking of the ‘ordinary’ procedure in one MCP
- *“although, technically, each claim is reviewed individually, the grouping of claims essentially means that individual claims are not individually decided”* (van Haersolte-van Hof, 2003: 76)
- *“a clearly documented nephew of the account holder may be denied the assets in the account because another claimant, who asserts he is the long-lost son of the account holder, has pieced together enough anecdotal information to make his story plausible”* (Alford, 2000: 163)

These scenarios describe a situation where one claim affects at least one other and has the possibility of affecting any number of other claims. For the purposes of this research, this phenomenon is called ‘*interrelation*’ of claim data. The final two scenarios show a situation where any of the single claims in the interrelated group cannot be completed until processing is completed for the group. As this appears to affect both accuracy of decisions and the efficient use of resources to manage potentially complicated connections, the concept of interrelation deserves more attention from research.

Additionally, a general assumption exists that claims processing is a very linear process and that a claim (or a set of claims) does not return to any previous stages during normal processing. Discussion in section 2.5.8 above summarises how changes to the process may force rework of affected claims. However, the assumption is generally that there is a forward progress of claims that is only altered in significant exceptions. Recursive movement of claims would seemingly have considerable effect on process design.

Critically missing from this literature is discussion specifically focused on the holistic design of the delivery system. While the considerations above are discussed and described individually, there is no discussion centred on understanding the collective nature of the considerations on delivery systems.

In summary, the following gaps have been identified within the MCP literature:

1. The management of inputs from claimants which create challenges to the MCP in order to increase efficiency.

2. The emergence of interrelation of claim data and approaches for managing the interrelation.
3. The effect of recursive movement of claims within the claims treatment process.
4. The omission of generalisable research to inform design of the delivery system for MCPs.

The following chapter will examine the extant literature on delivery system design within the OM discipline. The relevant research will be explored and summarised. The identified research will then be synthesised with the relevant MCP research to provide structure for the empirical work within this thesis.

3 Delivery System Design Principles

The previous chapter presented a review of the literature on the characteristics of Mass Claims Processes. It was illustrated how a legal mandate informs a set of procedural rules, which in-turn provides the guidance parameters for the design of the delivery processes for claims processing. It was further shown that the unique nature of each MCP renders a 'best practice model' unrealistic. Due to the specific context in which each organisation exists, a standardised model would not provide benefits, however common components exist. It was argued that the primary consideration is the decision on the trade-off between accuracy and efficiency. The resultant position then influences a set of decisions on considerations for design of the MCP. Finally, it was determined that the MCP literature lacks research which examines the structure and deployment of processes reflecting the identified set of process design characteristics.

The purpose of this chapter is to explore the theory from the domain of Operations Management on the design of delivery systems, and how the extant theory may inform design of MCPs. Section 3.1 begins by describing the unit of analysis; providing separation between the concepts of systems, processes, and organisations.

The concept of design is the focus of section 3.2. The goals and intent of design are discussed. The importance of understanding the 4 Vs of volume, variety, variation, and visibility characteristics for design is presented. The particular challenge of managing customer-created uncertainty which the design must manage is illustrated.

Section 3.2 focuses on the delivery system itself. The relationship between design and the operation of the delivery system will be described in section 3.3, with particular emphasis on how alignment between design and operation affects organisational performance.

Delivery system design characteristics are presented and discussed in section 3.4.

The classification schemes from the OM literature which illustrate delivery system design characteristics as a structure to create typologies are discussed in section 3.5. From this set of classification schemes, a set of delivery system design characteristics relevant to this thesis is identified.

The chapter concludes in section 3.6 with the presentation of a summary of this literature and the areas where the extant knowledge could be supported by further research.

Following this chapter, a synthesis of both the reviews will be presented in chapter 4 to highlight the proposed contribution of this research.

3.1 Unit of Analysis – Systems, Processes, & Organisations

The unit of analysis describes what is being observed and investigated. The focus of this research is the delivery system of the MCP, and how design considerations affect operational performance of that delivery system. To begin, some clarification is needed on what constitutes the delivery system and its relationship to other potential areas of analysis.

3.1.1 Systems

In order to be able to communicate understanding about the way a collection of entities (such as people, processes, and technology) behaves and thus may be controlled, a theoretical lens was needed which helped focus the perspective of the observer on the relevant parts. For this purpose, von Bertalanffy (1950) proposed a 'General Systems Theory' (GST) for the purpose of the "*formulation and deduction of those principles which are valid for 'systems' in general*" (p.139). While von Bertalanffy grounded this perspective in the natural sciences of Biophysics and Biochemistry, parallels were also presented which included socio-economic systems.

A system is described by Ackoff (in Lockett & Spear, 1980: 26) as a collection of elements whereby the properties and behaviour of the collected set affects- and is in turn affected by the individual elements. In this way, the performance of the whole is determined by both the actions of the individual elements, and the way the individual elements interact. The system cannot be divided into

independent subgroups, because each element affects the performance of the whole.

Importantly, GST holds that the structure of a system can be divided into a collection of entities, each which can be studied and analysed. However, when considering the function of the system, it must be viewed as an “*indivisible whole*” (Ackoff in Lockett & Spear, 1980: 27). Without this view of the whole, some of the essential nature of the system is lost.

GST allows the observer to view the collection of interacting entities through a ‘systems approach’ which presumes that while each entity may be performing optimally (from the criteria by which it is measured), the performance of the system towards a specified goal may not equal that optimal performance of the entities. Succinctly put, a systems approach understands that the sum performance of the functional parts is rarely equal to the performance of the whole.

3.1.2 Process

There exists an ongoing debate on the definition of process within the OM literature, and many authors have noted the lack of a single, agreed definition of the term. In reviewing the many perspectives on process, Melão & Pidd (2000) noted that the definition is elusive, and it differs from author to author.

However, there is general agreement that processes transform inputs into outputs:

- “Business processes can be thought of as a series of interrelated activities, crossing functional boundaries with inputs and outputs.” (Armistead & Machin, 1997: 886)
- “A specific ordering of work activities across time and place, with a beginning, an end, and clearly identified inputs and outputs: a structure for action.” (Davenport, 1993: 5)
- “A process is an approach for converting inputs into outputs. ... (*which*) has to have:
 - predictable and definable inputs

- a linear, logical sequence or flow
- a set of clearly definable tasks or activities
- *a predictable and desired outcome or result.*” (Zairi, 1997: 64)

Within the systems approach, processes are identified as the entities contained within the system which perform activities (Checkland, 1981). This helpfully draws the distinction between the whole and the component parts that act to achieve an explicit goal. Checkland describes the way in which the entities are physically assembled and the characteristics of their interactive behaviour as ‘*Structure*’; others such as Beer (1979) describe this as the organisation.

3.1.3 Organisation

This description of the ‘*whole*’ reflects consideration of the organisation itself; the collection of people, processes, and machines which comprise the organisation. However, the use of this term requires additional clarification to separate two different uses.

Vidgen (1998) examines the usefulness of a systems approach as a means of analysis and understanding of the behaviour of businesses. In the case for support, he draws on Beer’s (1979) distinction between ‘*organisation*’ as the business and ‘*organisation*’ as the “*relations between the processes that define a system as a unity*” (p.119). In their research, the alternate term ‘*enterprise*’ is used when referring to the business itself to avoid any semantic confusion.

Using these definitions, one can apply the label ‘*organisation*’ or ‘*enterprise*’ to the MCP; the label ‘*process*’ to the sets of actions performed by the MCP resources (staff & machines); and the label ‘*system*’ to the collection of processes which transform inputs from the customer into outputs requested by the customer. Clear parallels can be drawn between ‘*systems*’ and ‘*delivery systems*’ which form the focus of this research and will be discussed in section 3.3 below.

3.2 Design

There is an established connection between the design of a delivery system and its ability to achieve its intended goal (Menor *et al.*, 2001; Roth & Jackson,

1995). Roth & Menor (2003: 154) put it quite plainly: “*design choices influence capabilities*”. Considering the intent of this research is to investigate how the choices associated with design can influence the performance capabilities of the related delivery systems, an understanding of the term ‘*design*’ is required.

While the extant literature contains discussion on design of delivery systems, an agreed definition of the term ‘*design*’ within this literature is elusive. In this section some of the various uses of the term will be explored, and a definition will be adopted for the purposes of this research. Discussion will be presented on how design must find alignment other organisational concepts.

3.2.1 Defining ‘Design’

Generally, the OM literature approaches a definition of design as both a verb and a noun; whereby the action of ‘*design*’ creates a ‘*design*’. Goldstein *et al* (2002) use design as a noun; the defined mixture of physical and non-physical components within the service. Alternatively, Gummesson (1991) treats design as the action of making a final representation of the service concept through a series of maps, charts, and drawings. A similar approach is described Norling *et al* (1992 in Goldstein *et al.*, 2002) where the author focuses on the action of creation, describing design as the activities which describe and detail a service. Other authors have used the term ‘*service design*’ to encompass the process from idea generation to the creation of specifications which detail the service delivery process (Goldstein *et al.*, 2002; Zeithaml *et al.*, 1993; Martin & Horne, 1993).

3.2.2 What design intends to deliver – Service Concept

The Service Concept acts “*as the integrative element between an organisation’s business strategy and delivery of its service products*”(Goldstein *et al.*, 2002: 126). The service concept has been described as the ‘*what*’ requested by- and delivered to- the customer; what is to be done for the customer (Edvardsson & Olsson, 1996), what benefits the customer gains from the service (Collier, 1994) and what service package is offered to the customer (Roth & Menor, 2003). Heskett (1987) goes so far as to refer to the Service Concept as the way the organisation would wish to be perceived by its customers.

Each description of the Service Concept also mentions that a certain consideration of ‘*how*’ the service is to be delivered should be included under the Service Concept. Some have described this as ‘*service operations*’ (Johnston & Clark, 2008); or the way in which the service is to be delivered (Tax & Stuart, 1997; Goldstein *et al.*, 2002).

3.2.3 The 4 Vs

Describing the impact that the Service Concept will have on the Delivery System can be done through the use of a foundational OM concept: the ‘*Four Vs*’: Volume, Variety, Visibility, and Variation (Slack *et al.*, 2010). The descriptors are used in the discipline of OM as a means of characterising the delivery system and understanding the demands which design will need to meet.

Volume describes the number of inputs transformed into outputs by the system in focus. With roots in the manufacturing systems established by Ford in the early 20th century and in Taylor’s (1911) observations of production systems. Volume is inextricably linked to operations strategy, especially in how the delivery system is designed. Seminal work from Maister & Lovelock (1982) and Hayes & Wheelwright (1979) show the effects of increased volume on customisation, and, in turn, delivery system design. These authors’ research shows that as volume increases, customisation becomes less viable in terms of cost and time. Similarly, as customisation increases, potential volume through the production system decreases; though later research showed this decrease can be mitigated through the use of modularity approaches (Starr, 1965). More recently, the use of new technologies was shown to enable the organisation to offer customisation to an increasingly larger number of customers. The seemingly oxymoronic phrase ‘mass customisation’ describes the ability of delivery system to offer customised outputs at low cost (Duray *et al.*, 2000; Davis, 1987; Pine, 1993).

Variety describes the number of different outputs requested of the delivery system by the customer. Slack *et al* (2010) also call this ‘*received variety*’;

while Frei (Frei, 2006) labels this '*request variability*'.¹ The lower the variety, the higher potential for standardisation and the efficiency benefits with which it is associated (Skinner, 1969; Skinner, 1974). Conversely, higher variety means reduced possibility of standardisation. A delivery system intending to satisfy a high level of customer requested variety must be designed with the capability to produce the high variety of outputs requested by the customer; a concept reinforced by Ashby's (1956) *Law of Requisite Variety*.

Variation refers the fluctuation of customer demand over time (Slack *et al.*, 2010). Frei (2006) describes this as '*Arrival Variability*' and draws on Sasser's (1976) foundational work on how fluctuating demand presents operational challenges in managing capacity for delivery systems in high-customer contact environments. Godsiff (2010) presents further evidence of the impact of variation on the delivery system by stating that high levels of variation act as a different dimension of variety. In his view, the system must have the ability to match the changing *level* of demand, just as it would need to match the changing *nature* of customer demand, in order to remain viable. In this case, in order to successfully deliver the intended service concept, the delivery system must be able to match the variation in demand with adequate organisational capacity.

Visibility refers to the amount of value-adding activity which happens in the presence of the customer. This aligns with the concept of customer contact researched extensively by Chase's (1978), informed by Thompson's (1967) examinations on the 'technical core' of the organisation. This is described in greater detail in section 3.4.1 below. In those cases where the delivery system offers high levels of visibility, there is typically a correlation to reduced efficiency, as will be discussed below.

¹ Frei (2006) uses the term 'Variability' to describe the concept labelled here as 'Variety'. Frei also uses the term '*Arrival Variability*' which is similar to the 4 Vs concept of 'Variation'. In order to avoid confusion while maintaining conceptual focus, the 4 Vs terms are used herein.

Conceptualisations of the 4 Vs have significantly influenced the OM literature on Delivery Systems. Popular frameworks such as Wemmerlöv's (1990) Rigidity-Fluidity design characteristics, Hayes & Wheelwright's (1979) Product-Process Matrix, and Silvestro *et al.*'s (1992) Classification of Service Processes rely on observations of the 4Vs. In general, high volume-low variety-low visibility-low variation delivery systems can achieve significant cost reductions; while low volume-high variety-high visibility-high variation delivery systems typically provide increased customisation opportunities (Slack *et al.*, 2010).

3.2.4 Design in Input Uncertainty

The OM literature contains a well-established body of research which shows how customer input into the delivery system presents variety to that system (Kellogg & Nie, 1995; Frei, 2006; Frei & Harker, 1999; Ponsignon *et al.*, 2011; Sampson, 2000; Sampson & Froehle, 2006). Variety is generally considered to be the result of the variability/heterogeneity of customer inputs (Chase, 1978; Zeithaml *et al.*, 1985). Sampson & Froehle (2006) argue that the characteristics of the inputs have direct implications on the design characteristics of delivery system itself. Researchers in this area have shown that there are two common approaches to address customer-input induced variety:

- Allowing variety in inputs and increasing delivery system flexibility through fluid processes and technology (Sampson & Froehle, 2006; Wemmerlöv, 1990); also called an 'accommodation strategy' (Frei, 2006)
- Reducing variety in inputs such that they fall within the defined parameters of standardised processes, rejecting inputs which fall outside those parameters (Sampson & Froehle, 2006; Chase, 1978; Wemmerlöv, 1990); this attenuation approach is also called a 'reduction strategy' (Frei, 2006)

Importantly, an optimal alignment between organisational strategy and the design of the delivery system is suggested (Frei, 2006; Sampson & Froehle, 2006). In those cases where an accommodation strategy is chosen, but standardised processes are implemented; the organisation runs the risk of the customer asking for something which the standardised delivery system cannot deliver. In those cases where a reduction strategy is chosen, but flexible

processes are implemented; inefficiency is created within the delivery system whereby the system capability is underutilised in the misalignment.

Frei (2006) suggests viability outside of these generalised positions through strategies of '*uncompromised reduction*' and '*low-cost accommodation*.' Both require a specialised design within the delivery system. *Uncompromised reduction* places strategic importance on not compromising the quality of the experience for the customer. However, in order to reduce the potential cost of operation, the delivery system aims to reduce some of the variety presented by customer preference of delivery method, or customer ability to participate in the delivery process. The author provides examples of a university which selects only those students who have shown the aptitude to excel in higher education as an example of attenuating variety of customer ability; and a self-service restaurant as an example of attenuating customer preference of delivery method by "*target customers who are predisposed to want service to be delivered the same way*" (Frei, 2006: 96).

'*Low-cost accommodation*' allows the organisation to accommodate variability from the customer by shifting work away from the organisation and back to the customer. This strategy is "*very effective for high arrival or request variability, both of which complicate labor scheduling*" (Frei, 2006: 96). In this case, customers are given access to the delivery system in order to 'self-serve' and create their own outcome, thus matching their own variability.

While applicants to MCPs can hardly be expected to be able to analyse their claims and render legal verdicts which are grounded in high skill decision-making processes requiring highly educated workers; it is feasible to believe that the customer-contact stages of MCPs (such as completing claim forms and submitting supporting evidence) might employ such a strategy. As discussed in the previous chapter, these activities can be bound by fixed rules using standardised forms and managed by low-skill workers or automation.

3.3 Delivery Systems

As discussed above, parallels can be drawn between the terms '*system*' (as defined above) and '*delivery system*'. Goldstein *et al* (2002) refer to the

'*delivery system*' as the operational means of delivering the appropriate outcome to the customer. Further support for this OM perspective can be taken from Apte *et al* (2010), who refer to similar transformational constructs as creation processes. The authors describe the delivery system as performing transformation activities which utilise inputs to create customer-requested outputs.

In general, there is agreement among OM researchers that the delivery system is the collection of processes which deliver the intended output to the customer (Chase & Apte, 2007; Heskett, 1987; Hill *et al.*, 2002; Zomerdijk & Vries, 2007; Frei & Harker, 1999; Sampson, 2000; Sampson & Froehle, 2006). Others shift focus away from the output as an independent 'product', instead to focus on the manner in which the collection of processes deliver an 'experience' for the customer (Mohr & Bitner, 1995).

As Sousa & Voss (2006) point out, the organisation will often employ different means of delivering the requested output to the customer; and that in each case design goals must be integrated across the different delivery channels to ensure quality remains high. This requires an understanding that in order to achieve different goals, the delivery system requires different designs.

3.3.1 Relationship between design and operation of delivery systems

Existing research has emphasised the importance of the relationship between design and operational effectiveness of delivery systems. However, it has been noted that many factors should be considered whilst undertaking design activities. Heskett (1987) suggests the various factors of choice in technology, facilities, equipment layout, people, procedures, and service processes all affect design choices. The consequences of poor design creates organisational challenges in delivering the designed service. In a study identifying challenges specific to service management, it was noted that "*inadequate service design will cause continuous problems with service delivery*" (Gummesson, 1994: 85). The effects are not limited to operational levels. Research has shown that "*performance on a set of service delivery processes will coincide with firm level performance*" (Frei & Harker, 1999: 301); this connection was further supported by other OM researchers (Kellogg & Nie, 1995; Menor *et al.*, 2001; Roth &

Jackson, 1995; Roth & Menor, 2003). Thus, the design-operation relationship extends from the characteristics of the constituent parts (e.g. people, technology, procedure) to the performance of the firm.

3.3.2 Achieving the goal of design

Before the general concept of design is discussed, this section will explore the research which intends to inform practice on the influences on the design of delivery systems for MCPs. Much of the existing research work which looks to assist organisations in achieving the goal of design draws on the seminal work of Hayes & Wheelwright (1979). The Product-Process Matrix intended to inform managers in practice about the link between output standardisation and the suitable process structure to produce that product. The product-process matrix illustrates how increasing standardisation of the product allows the delivery process to focus on efficiency in production. However, this matrix and the research performed to develop it is predominantly informed by a materials-centric perspective grounded in decades of focus on manufacturing. As a result, the framework may be limited in the assistance it can provide in an information-centric context such as an MCP.

Clear separation between contexts was suggested as a way to aid future research into different transformational processes. Morris & Johnston (1987) suggest that *what* is being transformed is a critical question for the design and operation of transformational processes. The authors suggest that three categories of inputs exist: materials, customers, and information; and that these categorisations result in distinctly different types of transformational systems. The operational challenge, it is suggested, lies in ensuring that the different considerations for design for each input type, results in the successful delivery of the service concept.

More recent research added an additional dimension of consideration for design; a single organisation can offer multiple service concepts. The work of Ponsignon *et al* (2011) established that alignment must exist between each service concept, its target market, and its service delivery system (Ponsignon *et al.*, 2011). The findings of Ponsignon *et al* (2011) support the position of Hall & Johnson (2009); that attempts to offer multiple service concepts with the same

service delivery system design would result in sub-optimal organisational performance.

However, Hall & Johnson (2009) take multiple service concepts to an extreme, stating that each encounter with a customer can be unique and has the potential to require a unique design for the delivery system. The authors refer to such processes as ‘artistic’ processes, which include “*judgement-based work*”, “*craft work*”, or “*professional work*” (Hall & Johnson, 2009: 60). The authors also state that the unique nature of the service delivery stems from the variety inherent in the inputs provided by the customer. Where variety is not present, the authors advocate more rigid, predictable, and controllable ‘scientific’ process. The delivery process descriptor of ‘artistic/scientific’ resembles the descriptors ‘rigid/fluid’ described in Wemmerlöv (1990), which will be described in more detail in section 3.4.9 below.

The above discussion establishes the relationship between the service concept and the delivery system (and by extension, the design of that delivery system), the research of Roth & Menor (2003) further extends these relationships to include the ‘*target market*’; the customer group intended to receive the service concept output from the delivery system. Their research suggests the existence of a desired alignment between the three concepts. Such alignment would create an organisational benefit of optimal performance through increased competitiveness stemming from improved competitive capabilities.

Figure 3.1 - The Service Strategy Triad, Roth & Menor (2003)



The model, presented here in Figure 3.1, illustrates the relationships which comprise the Service Strategy Triad (SST).

The discussion in this literature on alignment remains limited by the assumption that the three elements are all flexible and each can be adjusted by strategic organisational decisions. As described in the previous chapter, this scenario is not present in MCPs; the target market and service concept are typically tightly defined by the mandate and rules (see section 2.3). Within this context, the capability for mutual adjustments to create alignment is not possible.

Adjustment is forced and uni-directional from the service concept & target market toward the delivery system. Discourse on established structures such as the one described above is currently lacking in the extant literature.

3.4 Characteristics influencing design of service delivery systems

The following sections describe the individual characteristics of delivery system design which appear in the OM literature. OM researchers focusing on delivery system design have presented several collections of the following characteristics in order to build classification schemes. Such classification schemes are useful in deriving theoretical insights into delivery system design. These classification schemes will be discussed immediately following this section.

3.4.1 Customer Contact & the Degree of Customisation

One of the most frequently discussed characteristics of delivery systems within the OM literature is the degree of customer contact. Championed and researched thoroughly by Chase (1978; 1981; 2010; Chase & Garvin, 1989; Chase & Tansik, 1983) this characteristic relates to the relative amount of contact between the customer and the delivery system. Early discussions from Thompson (1967) emphasised the changing nature of the tasks requested of the delivery system resulting from the physical presence of the customer. Examples of high contact delivery systems include hotels, restaurants, and public transportation; examples of low contact delivery systems include the processing of food, and the production of durable/consumer goods (Chase, 1978: 138).

Informed by Thompson, Chase (1978) offers the idea that the logical move is to separate customer contact processes from non-contact processes. This separation also led to a two separate sets of design considerations for high-customer contact systems and low-customer contact systems. A selection of those considerations is shown in Table 3.1, below.

Table 3.1 - Design considerations in high- & low-contact systems (adapted from Chase, 1978)

Decision	High Contact System	Low Contact System
Process Design	Stages of the production process have a direct immediate effect on the customer.	Customer is not involved in the majority of processing steps.
Scheduling	Customer is in the production schedule and must be accommodated.	Customer is concerned mainly with completion dates.
Worker Skills	Direct work force comprises a major part of the service product and so must be able to interact well with the public.	Direct work force need only have technical skills.
Quality Control	Quality standards are often in the eye of the beholder and hence variable.	Quality standards are generally measurable and hence fixed.
Time Standards	Service time depends on customer needs, and therefore time standards are inherently loose.	Work is performed on customer surrogates (e.g., forms), and time standards can be tight.
Forecasting	Forecasts are short term, time-oriented.	Forecasts are long-term, output-oriented.

The resultant characterisation has several impacts on the operational system. Chase & Aquilano (1995) observed that high contact systems are associated with greater levels of customisation for the customer. Increased customer contact was observed to lead to higher presented variety and inefficiency

(Chase, 1981). Inefficiency stems from the uncertain nature of the customer request, a view observed and supported by several others (Chase, 1978; Chase, 1981; Frei, 2006; Frei & Harker, 1999; Kellogg & Nie, 1995). (See also the discussion on variety in section 3.2.3 above.)

The characteristic relating to the amount of customer contact has come under criticism for being ambiguous; in that it is difficult to firmly define what 'contact' truly means (Schmenner, 1986). More recently, discussion on customer contact has included interactions with any representative entity of the organisation: the internet, automated kiosk, or other machine which acts as a surrogate for the organisation (Sampson, 2012).

Despite the nature of the contact, the impact on the service delivery system warrants consideration as both physical and virtual contact are seen as equally impactful for design considerations (Froehle & Roth, 2004). The amount of contact both affects, and is affected by, the degree of customisation which in turn affects, and is affected by, the service package (Kellogg & Nie, 1995). This concept bears great resemblance to the Service Strategy Triad (discussed in section 3.3.2 above).

The extant literature presents a wide agreement among OM researchers that the degree of customer contact is a significant influence on design decisions for delivery systems.

3.4.2 Front- & back-office configuration

As mentioned above, the customer presents uncertainty to the service delivery system, which limits the efficiency of the production process. Limiting the customer-created disturbance to the process led to the idea that the efficiency-focused processes should be separated from those processes which have the highest amount of contact with the customer (Thompson, 1967), also called the 'front office' processes. In this way, the efficient processes, can be protected and allowed to function at the highest levels of efficiency, created a 'buffered technical core' (Chase, 1978) or a set of 'back office' processes (Skinner, 1974). This is clearly directly linked to the degree of customer contact. Those

in the 'back offices' will have limited/no contact with customers; while those in the 'front offices' will be faced with high levels of customer contact.

Skinner called this separation of front- and back-offices the 'plant within a plant'; stating that the single plant cannot perform well on every facet of operation and that trade-offs must exist between competing measurements. "*Certain tasks must be compromised to meet others. They cannot all be accomplished equally well because of the inevitable limitations of equipment and process technology*" (Skinner, 1974: 115). With the divided plant, each area can have an area of specialisation where performance against selected metrics can improve without hindrance from competing metrics.

However, new technologies can place the technical core within reach of the customer, forcing a restructuring of the protective barriers of front-office processes. Through the use of internet-based tools, the organisation can more easily offer customised outputs to a larger number of customers. This technology connects the customer directly to the productive core, bypassing the variety-attenuating people/processes in the front office. The technology can also offer protection from requests of variety which may compromise the efficient productivity of the delivery system through machine-based rules preventing out-of-boundary requests. The concept of the 'connected core' (Voss, 2003) still requires a 'back office' to ensure the delivery system can create the desired output for the customer. Other research links the front-office/back-office design structure to the strategic objectives of the organisation (Metters & Vargas, 2000), as discussed in section 3.3.1 above.

However, there appears to be a fundamental assumption within this area of the literature which links the front-office with customisation activities and links the back-office with efficiency in production. This may be at odds with the description of MCP delivery systems. The MCP literature describes the use of efficiency-directed processes in the front-office to receive all submissions, identify and reject invalid claims, and ensure collection and submission of required evidence for valid claims. The claim (and evidence) is then fed into the highly-skilled legal staff in the back-office for individual consideration. This

structure, an efficiency-driven front-office linked to customisation-driven back-office, appears to lack discourse in this literature.

3.4.3 Employee Discretion

As discussed earlier, variety is introduced to the organisation through customer contact with the front office delivery systems. One of the ways of coping with variety is to allow employees a level of discretion to manage that variety. A high degree of employee discretion allows the front office employee to alter the service offering or manage the customer request; while a low degree of discretion leaves the employee with no ability to alter the offering (Buzacott, 2000; Lovelock, 1983; Silvestro *et al.*, 1992).

In allowing the front-office employee to alter the service offering or manage the customer request, the organisation can more efficiently deal with variety. This choice to allow higher degrees of discretion, however, relies on employees who are better trained and more knowledgeable about the organisational impacts of their decisions (e.g. profitability, price/value trade-offs, limits to possible adjustments of the offering, and the ability to deliver the adjusted offering).

Professional services, such as lawyers, accountants, doctors, fall into the category of high degree of discretion; possessing “*extensive training to develop the requisite skills and judgement needed for satisfactory service delivery*” (Lovelock, 1983: 16). Conversely, bus drivers, ticket agents, and bank tellers can be described as having low discretion (Silvestro *et al.*, 1992) and are therefore generally lower-skilled.

3.4.4 Degree of Divergence

Divergence describes the “*executorial latitude or variability*” of “*steps and sequences that constitute a process*” (Shostack, 1987: 35). The latitude or variability can be measured in degrees of freedom away from a prescribed routine of ‘normal’ operation in the process. The author goes on to describe a highly divergent process as one where every instance of the process is unique; and conversely, low divergence results in standardisation. Professional services exhibit high degrees of process divergence because they require judgements, discretion, and adaption to the situation by the worker. Low

degrees of divergence can be found in the high volume automotive industry, where any divergence from the procedure is highly undesirable.

Degrees of divergence can be linked to strategic operational choices. Reducing divergence can result in the opportunity to capitalise on economies of scale, and increases in reliable, uniform delivery systems. Increasing divergence can result in opportunities for customisation and flexibility in delivery systems.

The usefulness of this particular characteristic for influencing delivery system design is questionable. What divergence describes appears to be more appropriately described by the degree of employee discretion. Employee discretion allows for the alteration of the service offering, which results in executional latitude. In terms of service delivery system design, a chosen degree of employee discretion can be decided in the design phase which will influence the level of intended divergence for the service delivery system.

3.4.5 Labour intensity

Labour intensity was described by Schmenner (1986) as the delivery system's ratio of labour cost incurred to the value of the plant and equipment needed. The author describes high labour-intensive businesses as professional services, insurance provision, security/commodity brokers; and low labour-intensive businesses to be trucking/shipping, hospitals, communications, and banking. The varying degrees of labour-intensity are later compared by the author to levels of customisation in order to create a typology matrix.

From the perspective of this thesis, one of the resultant 'types' described by the author becomes important to examine. The '*mass service*' is a delivery system with high degrees of labour intensity and low degree of interaction/customisation. The author gives these examples of a mass service: retailing, wholesaling, schools, laundry services, and "*computer software and data-processing functions*" (Schmenner, 1986: 24). Alternatively, with an increase of interaction/customisation and similarly high levels of labour intensity, one finds the author's described area of the professional services: doctors, lawyers, accountants, and architects. This is illustrated in the Service Process Matrix, shown here in Table 3.2.

Table 3.2 - The Service Process Matrix (Schmenner, 1986)

		Degree of Interaction/Customisation	
		Low	High
Degree of Labour Intensity	Low	Service Factory: <ul style="list-style-type: none"> • Airlines • Trucking • Hotels • Restaurant 	Service Shop: <ul style="list-style-type: none"> • Hospitals • Auto Repair • Other repair services
	High	Mass Service: <ul style="list-style-type: none"> • Retailing • Wholesaling • Schools • Computer software and data-processing functions 	Professional Service: <ul style="list-style-type: none"> • Doctors • Lawyers • Accountants • Architects

Drawing from the exploration of the literature on Mass Claims Processes, MCPs typically exhibit the characteristics of two of these illustrated types: mass service (in that they are typically large-scale data processing activities); and professional service (in that lawyers adjudicate individual cases). This places MCPs in the 'highly labour intense' half of Schmenner's matrix, while transcending the boundary for interaction/customisation. The inability to place MCPs on this matrix accurately raises doubts about the usefulness of this typology in this context.

The review of the MCP literature leads to the production of a very high ratio of labour cost vs plant/equipment costs. However, further extending the doubt raised about the usefulness of this typology here, the measurement of labour intensity as a ratio is problematic for MCPs because the value of the plant and equipment can vary widely. For instance, several of the MCP examples from the literature review chapter were based in Switzerland, where office space can command costs significantly higher than in other areas of the world. Similarly, the IT system employed in one organisation may cost significantly more than in another. The resulting ratio for this example may be radically different than that

of another MCP which has virtually the same intended delivery system and the matching goal of delivering similar outputs to the claimant. By Schmenner's logic, these two example organisations have different managerial challenges (Schmenner, 1986: 25) despite the overall similarity. Again, this matrix appears to be unhelpful in the context of MCPs.

3.4.6 Degree of Automation

The characteristic 'degree of automation' appears in several different forms in the OM literature. Generally, it describes the extent to which the delivery system uses human or technological resources to deliver the output to the customer. Following are the variations on the theme of 'degree of automation' from the OM literature describing delivery system design.

Level of Human Intermediation (Apte & Vepsäläinen, 1993) varies from several different intermediaries needed to reach a customer, to nearly no human intermediary at all. Other research refers to an equipment or people focus within the delivery system (Silvestro *et al.*, 1992). Kellogg & Nie (1995) describe automation in relation to efficiency in delivery processes. The authors state that the greater the need for efficiency, such as in high volume-low variety delivery systems, the greater the dependence on technological automation.

Ponsignon *et al* (2011) employ Degree of Automation as one of several characteristics which influence delivery system design. The authors refrain from formally defining 'automation,' but from the context, the authors' intent appears to align with previous descriptions in order to build on the related typologies.

In each of these, the degree of automation has several logical dependencies. Firstly, high levels of automation rely on a process design utilising rigid system rules in order to minimise the judgement or critical perspective of the worker. Second, higher degrees of automation are assumed to lead to higher levels of efficiency, stemming from shorter processing times and increased throughput volume for the delivery system. Third, higher degrees of automation are also assumed to lead to lower levels of variety of the output. The 'machine' cannot

'choose' to make something different. A fault of variety lies with either inappropriate inputs or a flawed procedure.

This delivery system design characteristic is particularly relevant to Mass Claims Processes. The review of the Mass Claims Processes literature discusses the emphasis placed on the use of automation of processes in MCPs (Heiskanen, 2003). This is generally due to the high volume of claims to be finalised in a limited period of time.

3.4.7 Level of Worker Skill

The skill level of the worker frequently appears in OM research on delivery system design. In this section, several related perspectives will be contrasted.

Worker skill can be increased through formal education, as in the case of professional services such as lawyers and accountants; or through specific training programmes within the workplace, such as training on new product offers for an organisation's customer service staff. Thomas (1978) observed the link between profitability and utilisation of the lowest-skilled-employee possible able to perform the task. Drawing from research performed in a law firm, the author observed that many of the tasks are routine and time-consuming, but can be done by paralegals or recent law school graduates. The time of these employees is less expensive than that of a partner, but they have enough skill to complete the task. "*The expensive labor is then free to do those crucial tasks that bring profits to the company*" (Thomas, 1978: 162).

Worker skill level is also observed to have connections with whether the delivery system is equipment- or people-based (Thomas, 1978; Wemmerlöv, 1990; Kellogg & Nie, 1995). In those delivery systems which are equipment-based, it is generally assumed that they can be automated and observed by relatively low-skilled workers. One author observes that people-based delivery systems require a wide range of skilled work: "*unskilled labour, skilled labour, or professionals ... identifies service workers' skill level as an important characteristic of service systems*" (Wemmerlöv, 1990: 21).

Conspicuously bereft of discussion on worker skills, Silvestro *et al* (1992) utilise the characteristics of 'equipment/people focus' and 'level of worker discretion'

as part of a classification scheme for delivery systems. The breadth of the Silvestro *et al.* classification scheme is presented in section 3.5.1 below.

The discussion on both characteristics of ‘equipment/people focus’ and ‘level of worker discretion’ implies a related skill level or education/training level which contributes to the observed level for the characteristics. The inclusion by Silvestro *et al.* of ‘equipment/people’ into the classification scheme is based, in part, on the logic of Thomas (1978); and the inclusion of ‘worker discretion’ is based on the use of the similar characteristic by Lovelock (1983). In his research, high discretion organisations are described as “*requiring extensive training to develop the requisite skills and judgement*” (Lovelock, 1983: 16). So, while the Silvestro *et al.* (1992) classification does not list ‘worker skill level’ as one of the characteristics, it is included indirectly.

More directly, Kellogg & Nie (1995) propose:

“The expert service process requires a higher level of knowledge, technical skills, expertise and judgment, while the service factory process requires more basic technical training and interpersonal communication skills.” (Kellogg & Nie, 1995: 329)

This proposition is well-grounded in OM research (Chase, 1978; Chase, 1981; Chase & Tansik, 1983; Larsson & Bowen, 1989), and underpins the relevance of this worker skill level for this thesis. Importantly, this description from Kellogg & Nie also describes the direct correlation between worker skill level, the degree of customer contact, and the degree of worker discretion.

Given the interconnection of these characteristics, one can state that as customer contact increases, there is a need for increased skill levels and discretion in the workers delivering the output to the customer.

3.4.8 Location of facilities/delivery systems

The decision on location of the delivery system is strongly linked to design strategy, and the questions: ‘*what does the organisation do?*’ and ‘*how do they do it?*’ (Slack *et al.*, 2010). Research on the location of facility/delivery system focuses on the organisation’s strategic ability to match supply with demand

(Cohen *et al.*, 2000). More specifically, this characteristic considers whether a centralised facility or a distributed/de-centralised plan is appropriate for the organisation's chosen strategy in the marketplace.

“Companies with a centralized supply-chain service strategy set their sights on cost reduction and efficiency. ... In a distributed strategy, companies emphasize such service metrics as availability and rapid response.” (Cohen et al., 2000: 99)

Chase & Tansik (1983) link facility/delivery system location choice to customer contact; proposing that systems with high levels of customer contact must be located near the customer, while low-contact systems can be located near resources. The outcome of these location choices is the creation of efficiency for low-contact systems; or higher rates of customisation in high-contact systems to deliver higher levels of satisfaction.

3.4.9 Degree of Routinisation

Routinisation is a multi-dimensional construct used to define the ultimate ‘rigidity’ or ‘fluidity’ of a delivery process (Wemmerlöv, 1990); a highly routinised process is more rigid, and conversely, a fluid process has lower levels of routinisation. The author combines several factors to define routinisation:

- Task variety
- Technical skill of the worker
- Richness of information exchange
- Employee discretion
- Volume of throughput
- Arrival rate predictability
- Response time
- Number of customers involved in the process at a given time

The author then lists the generalisations which can be made about rigid and fluid processes (Wemmerlöv, 1990: 32), shown here in Table 3.3.

Table 3.3 – Characteristics of Rigid & Fluid Processes

Rigid Processes	Fluid Processes
<ul style="list-style-type: none"> • Dominate in machine-based service organisations • Dominate in service directed toward customer possessions • Tend to produce standardised outputs • Suits mechanisation or automation 	<ul style="list-style-type: none"> • Dominate in people-based service organisations • Dominate in service directed toward people • Tend to produce customised outputs • Dominate in professional services

The author uses this multi-dimensional characteristic to inform a taxonomy which can be used for design of delivery systems, which will be discussed in section 3.5.1 below. However, in summary, rigid processes tend to favour delivery systems where the goal is high volume outputs with low production costs; while fluid processes tend to favour delivery systems where the goal is customisation and flexibility in production.

3.4.10 Interdependency

A further consideration for design of delivery systems is the concept of interdependency. To further explore this concept, a reminder of previous discussion is required. At the start of this chapter, the differences between process, system, and organisation were presented to identify the unit of analysis for this research.

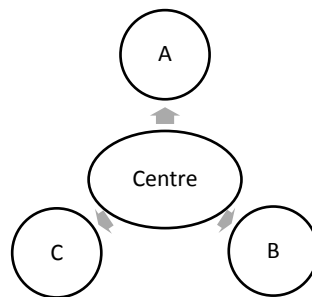
A process was identified as a series of interrelated activities with a beginning and an end, and a discernible sequence or flow which transform an input into an output (Armistead & Machin, 1997; Davenport, 1993 *inter alia*). Systems were described as the collection of processes performing together which can be structurally decomposed, but remains *functionally indivisible*. When operating together, the system then presents a set of emergent properties and behaviour which are not observable when the system is decomposed into its component parts (Ackoff, 1980; Checkland, 1981 *inter alia*).

Rather than at the process level, which has been the focus of the discussion above on design characteristics, Interdependency places its focus at the system

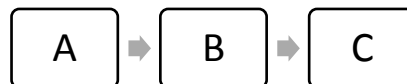
level. Interdependency describes the relationship among the functional units or tasks within the organisation (Lorsch & Lawrence, 1972; Perrow, 1967) which depend on the action of the other to achieve their purpose or goal.

Early research by Thompson (1967, *in* Donaldson, 2001), focusing solely on task interdependency, produced a categorisation of three types:

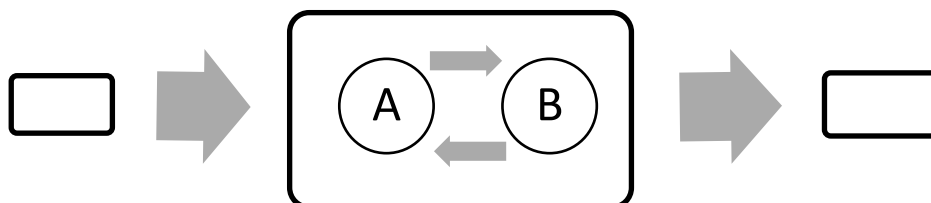
- Pooled – each task is not directly linked, but linked centrally; all contributing to the whole and in-turn supported by the whole.



- Sequential – the outputs of one task are used as inputs for the next task.



- Reciprocal – two (or more) tasks have a two-way relationship where each uses the other's output, creating a pattern of feedback which affects the larger whole.



Larsson & Bowen (1989) build on this categorisation, proposing that:

1. task interdependency describes a division of activity
2. the degree of customisation/standardisation describes the interdependence of the system

In the first of the above proposals, for the transformation activity to occur, interdependence exists between the tasks performed by entities acting as

producers within the delivery system. The authors distinguish between the intra-organisational interdependence explored by Thompson (1967, *in* Donaldson, 2001); and the interdependence between customer-and-organisation (high degree of customer contact) where tasks are performed by customers themselves.

In the second of the above enumerated proposals, interdependency is a characteristic which is described by level of standardisation of the delivery system. “*The more standardized the service, the more repetitive and the less differentiated the actions and the interdependencies*” of the system (Larsson & Bowen, 1989: 219); conversely, as customisation increases, “*the more unique the interdependencies between the actions*” within the delivery system (*ibid.*: 219).

Later research on Modularity (*e.g.* Duray *et al.*, 2000; Salvador *et al.*, 2002) provides evidence to dispute this position, showing that customisation can be achieved using standardised modules of delivery. Baldwin & Clark (1994) describe modularity as a complex system of components that can function independently, and linked using standard interfaces. In this way, different collections of independent components can be easily assembled to produce a customised output for the customer. This links to work done on the design characteristic of Postponement, which will be discussed in the next section.

For Larsson & Bowen (1989) however, the characteristic of ‘uniqueness’ lacks significant justification from the authors in its relevance to design; and it appears to fail to add any additional value beyond Chase’s (1978) customisation/standardisation approach, or Porter & Millar’s (1985) differentiation strategies. Importantly however, the authors evidence an optimal alignment between designed interdependence and input uncertainty (discussed in section 3.2.3 above.)

3.4.11 Postponement

For those delivery systems which were designed for efficiency and high volume, researchers have proposed changes in configuration of the delivery system to enable customisation with a reduced cost risk. The concept of ‘postponement’

was put forward by Alderson (1950) who first approached the topic from a marketing perspective. Alderson saw the value in doing as much standardised work as possible before any customisation. Customisation can occur in both the form and the location of the output delivered to the customer.

“(T)he principle of postponement requires that changes in form and identity occur at the latest possible point in the marketing flow; and changes in inventory location occur at the latest possible point in time.” (Alderson, 1950: 110)

Alderson proposes two types of postponement; that of ‘form and identity’ which describes the combination of raw materials, the presentation, and/or packaging of the product. Essentially, this describes the customisation of the product itself or the packing in which it is presented. Secondly, Alderson describes postponement of changes of location of the product, which describes the steps of physical distribution which come after the creation of the product.

Alderson’s definition, while helpful, fails to recognise the very thing which makes postponement viable; the customer order which dictates the requisite change in form. Subsequent research includes customer requirements in the definition (Yang *et al.*, 2010; van Hoek, 2001) stating that postponement means waiting for customer orders/requirements. Other research states, more generally, that postponement delays actions by the firm *“instead of starting it with incomplete or unreliable information input”* (Yang *et al.*, 2004: 478).

The principle of postponement was further developed by Bucklin (1965), emphasising the risks associated with postponement and its converse principle, ‘speculation.’ In Bucklin’s view, postponement shifts risk of ownership of goods in from one firm to another; *“the manufacturer who postpones by refusing to produce except to order is shifting the risk forward to the buyer”* (Bucklin, 1965: 27). Conversely, speculation moves risk to the firm. *“Changes in form, and the movement of goods to forward inventories, should be made at the earliest possible time in the marketing flow in order to reduce the costs of the marketing system”* (Bucklin, 1965: 27).

Reviews of the postponement literature revealed several different approaches to categorisations produced by researchers (van Hoek, 2001; Yang *et al.*, 2004). These are summarised in Table 3.4. These categories were devised to assist in the implementation of postponement in practice, which will be discussed in more detail below.

Table 3.4 - Postponement found in the literature (adapted from Yang *et al.*, 2004)

Categorisations of postponement	Source
Labelling, packaging, assembly, manufacturing, & time	(Zinn & Bowersox, 1988)
Time, place, & manufacturing/form	(Bowersox & Closs, 1996)
Pull postponement, logistics, & form	(Lee, 1998)
Upstream & downstream	(van Hoek, 2001)

Of particular relevance is the concept of 'Pull Postponement' (Lee, 1998) which focuses on postponement application to mass customisation delivery systems. This approach proposes an earlier placement of a '*decoupling point*' between build-to-forecast work (push) and build-to-order work (pull) in the production process. The decoupling point separates the part of the delivery system responsible for fulfilling customer orders from the part of the delivery system responsible for production planning (Mason-Jones *et al.*, 2000: 56).

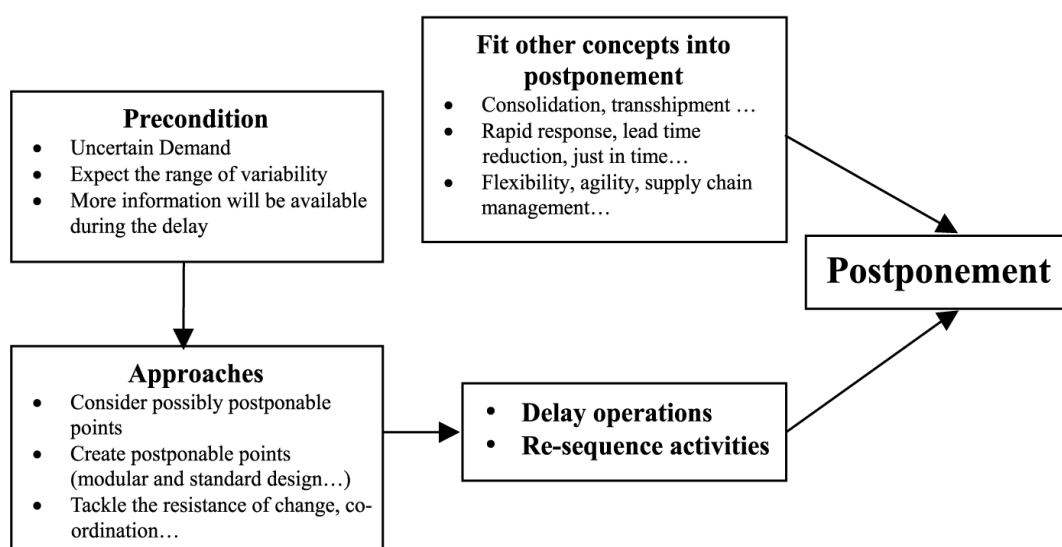
An earlier decoupling point increases the amount of '*pull*' work done after the customer request is received. This approach appears to bear significance to the description of delivery in MCPs described in that literature. However, Pull Postponement also requires highly accurate order capture at the beginning of the production process so that the configuration of work required can be known upon receipt of the order. The emergent properties of information-centric claims treatment render it very difficult to know the totality of claim work required when the claim is received. This appears to make the application of Pull Postponement in this context problematic.

This highlights a general point about Postponement. While a body of literature exists on the impact of postponement on the design of traditional material-centric processes; there is minimal discussion on the potential application of postponement to the design of delivery systems which focus on customer or information transformations (van Hoek, 2001; Boone *et al.*, 2007). *"Very little has been written with respect to the exploitation of the transferability and applicability of postponement"* to customer- or information-centric delivery systems (Yang *et al.*, 2010: 471). Moreover, the application of postponement to the service industry is suggested as an area of significant interest and importance to OM (Yang *et al.*, 2010: 472). Further development of theory in this area is suggested, with emphasis on the use of empirical methods in diverse contexts to further examine the broader possibilities of implementing postponement in a customer- or information-centric setting.

Implementation of Postponement

Table 3.4 above describes several different types of postponement that have been presented and discussed at length in the literature. A generic framework to assist in identifying the conditions in which postponement should be applied is presented by Yang *et al* (2004) (see Figure 3.2 below). Importantly, the authors emphasise research which illustrates how modularity and standardised design is conducive to creating points for postponement in a process.

Figure 3.2 - Framework for the application of postponement (from Yang *et al*, 2004)



The figure suggests that given uncertainty of demand, where that uncertainty may be resolved, efficiencies may be gained by performing standardised tasks required for all outputs. The authors then suggest reviewing the entire delivery process (Alderson, 1950) to find the most likely 'candidate' for postponement. Bucklin (1965) proposes the adoption of a system perspective, advising that the optimal solution must be one that affects "*the entire channel*" (Bucklin, 1965: 31). Once the intervention point is identified, delays are implemented to prevent inefficient production, and/or tasks are re-sequenced to utilise spare capacity.

However, this body of research also states that the appropriate type of postponement approach is dictated by the nature of the uncertainty (Yang *et al.*, 2004). "*That is, postponement is a strategy to intentionally delay the execution of a task instead of starting it with incomplete or unreliable information input*" (Yang *et al.*, 2004: 478). This appears to be entirely unhelpful when the focus of the delivery system is information itself. In information-centric processes, delaying the execution of the task due to incomplete information would delay the primary transformation activity. As described in the review of the MCP literature, one of the challenges presented in this context is the emergence of information which can only take place once the claim is investigated as part of the larger body of claims. This lack of clarity for information-centric transformations may benefit from further context-specific research.

In summary, the extant empirical research on postponement suggests that significant attention has been given to postponement in material-centric delivery systems; but little attention has been given to information-centric delivery systems. It has also been recognised that the application of postponement in delivery systems which are not material-centric is an area of interest to OM research.

3.4.12 Techniques

Earlier in this chapter, discussion was presented on how delivery system design faces a difficult task as a result of uncertainty stemming from customer provided inputs (see section 3.2.4 above). Research in OM has also explored how similarity in customer inputs may be exploited to increase operational efficiency. Discussion in the previous chapter on 'Batching' techniques can be similarly

found in the Operations Management literature as a means of achieving efficiency in high volume delivery systems (Lovelock, 1992; Slack *et al.*, 2010) and information-intensive operations (Simons & Russell, 2002).

Batching has traditionally been seen as a production technique whereby a larger number of similar outputs (a 'batch') are made in a single production run as a way of achieving economies of scale (Slack *et al.*, 2010, *inter alia*) through the reduction of setups/changeovers. This technique also supports the delivery of a variety of outputs by the delivery system.

Simons & Russell (2002) explored the use of batching techniques in case study examining the delivery of court services as a means of achieving efficiency savings for the taxpayer. In that study, 'batching' meant the intentional grouping of jobs or customers to allow several customers to be served at one time; or delivering a series of similar tasks consecutively. This study has particular relevance here due to the focus on the contextually similar input of customer information. The findings emphasised benefits were found in human resource utilisation and in the reduction of scheduling complexity. These findings appear to align with the benefits of batching discussed in the MCP literature.

3.5 Classification Schemes

This section presents description on how the previous individual characteristics are combined by OM researchers to create classification schemes which aid in the understanding of delivery systems. The importance of using classification schemes has been emphasised in management research, but draws from roots in pure scientific understanding where uniformities amongst objects under observation become the basis for developing theory.

"To be scientifically useful a concept must lend itself to the formulation of general laws or theoretical principles which reflect uniformities in the subject matter under study, and which thus provide a basis for explanation, prediction, and generally scientific understanding." (Hempel, 1965: 146)

This approach, which McKelvey (1982) calls 'functional science', seeks to discover behaviour, processes, and function; and understand why things

behave the way they do. The author describes the use of classifications, taxonomy, and typology as a means of organising characteristics of the objects under study. Such organisation is “*tantamount to the codification of the existing state of knowledge in a discipline*” (Tiryakian, 1968: 178).

However, while ‘classifications’, ‘taxonomy’, and ‘typology’ each have distinct meanings, they are used interchangeably in the OM literature as meta-views (Cook *et al.*, 1999). The use of such classification methods is well established. Meyer *et al* (1993) describe the use of typologies as a way to create order and sense through the creation of discrete and ‘relatively homogeneous’ groups sharing a set of traits which allows them to ‘hang together’ (Tiryakian, 1968).

However, Meyer *et al* (1993) warn of the peril of assuming that classification implies causal explanation. In support, they offer up a wonderfully appropriate selection from Lewis Carroll’s *Alice’s Adventures in Wonderland*:

“*Naming something,*” said Alice to the Red Queen,

“*...isn’t the same as explaining it.*”

One must be reminded that the purpose of classification/taxonomy/typology is to assist further understanding of the phenomenon under study. In the following section, several classification schemes are reviewed, and their ability to inform process design is examined.

3.5.1 Overview of Service Classification Schemes

The use of classification schemes to inform process design is supported in the OM literature. Classification schemes assist in identifying the ‘appropriate’ choice of process to meet customer need (Collier & Meyer, 2000; Mason-Jones *et al.*, 2000) or to meet the organisation’s delivery strategy (Safizadeh *et al.*, 2003; Roth & Menor, 2003; Buzacott, 2000).

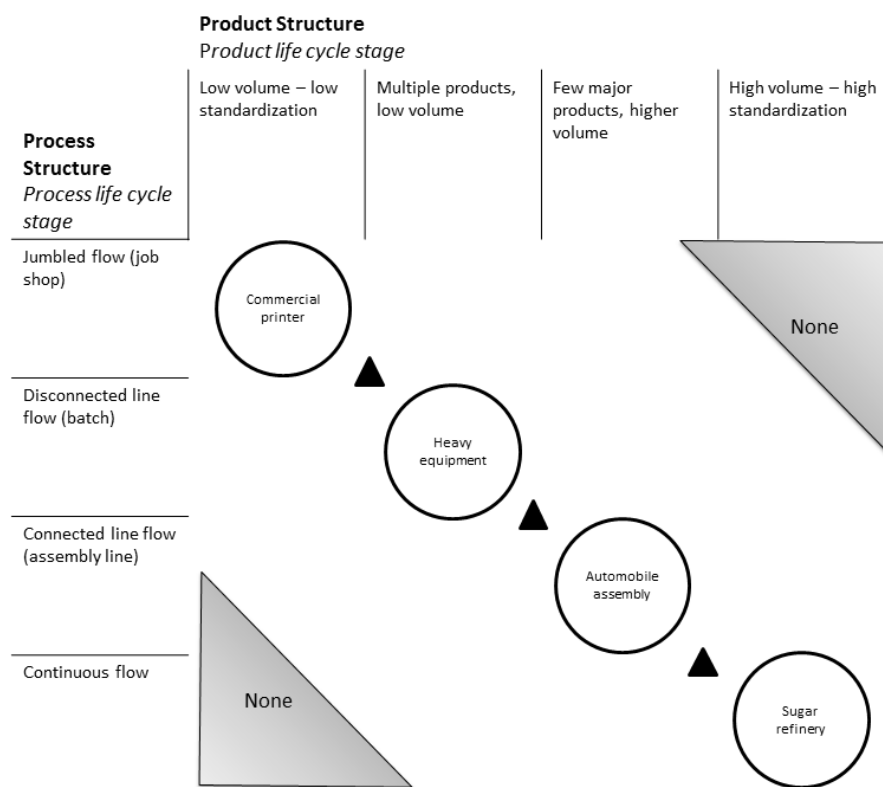
Safizadeh *et al.* (2003) helpfully illustrate the relationship between ‘classification schemes’ and the ‘positioning matrices’ which occur frequently in the literature. As described above, classifications aid in grouping entities which possess similar characteristics. Matrices juxtapose different classifications to highlight differences between the entities. It is through these comparisons that one can

more easily grasp the differences between the entities, and to understand the required adjustments needed to change strategic positions on the matrix.

Understanding the differences between delivery systems and how they might be managed require clear understanding of the dimensions of volume, variety, variation, and visibility (Slack *et al.*, 2010) (discussed in section 3.2.3 above). The summary position from the analysis presented earlier has direct relevance to the following classification schemes.

In summary, higher levels of efficiency can be gained if the organisation increases volume, reduces variety, reduces variation, and reduces visibility; higher levels of customisation align with the converse of each. Hayes & Wheelwright's (1979) widely-utilised product-process matrix, shown in Figure 3.3, below, juxtaposes the process type (from custom 'one-of-a-kind' to 'job shops' through 'batch,' 'assembly line,' and 'continuous flow') against the product mix (using varying degrees of volume/variety of the product).

Figure 3.3 - Product - Process Matrix (Hayes & Wheelwright, 1979)



However, the inclusion of Hayes & Wheelwright's classification scheme in the focal set below is questionable due to the fact that it uses the design of the delivery system as one of the axes in the matrix. This research intends to determine appropriate delivery system design in the context of mass claims processes. Hayes & Wheelwright's scheme presumes the existence of a delivery system in order for the scheme to be useful. As a result, the tool is helpful for the analysis of existing systems but may not be appropriate for the establishment of such a delivery system.

The extant literature contains several frameworks containing process design characteristics relevant in the context of this research. These frameworks will be explored to identify salient characteristics that can, in turn, progress understanding of delivery system design in MCPs. A summary and analysis of the relevant frameworks is presented here in Table 3.5.

Table 3.5 – OM research on design characteristics for delivery systems

Author(s) (Year)	Characteristics Utilised	Analysis
Chase (1978)	<ul style="list-style-type: none"> · Customer contact (comprised of:) <ul style="list-style-type: none"> · Facility location · Facility layout · Product design · Process design · Scheduling · Production planning · Worker skills · Quality control · Time standards · Wage payment · Capacity planning · Forecasting 	<ul style="list-style-type: none"> · Degree of contact with the customer has implications on 12 different design decisions. · Only one of the 12 decisions considered (worker skill level) remained relevant to later research. The others were adapted and refined, or in some cases abandoned.

Author(s) (Year)	Characteristics Utilised	Analysis
Lovelock (1983)	<ul style="list-style-type: none"> · Nature of the service act <ul style="list-style-type: none"> – tangible or intangible – on people or things · Type of relationship · Worker discretion (<i>customisation</i>) · Nature of demand & supply · Method of delivery <ul style="list-style-type: none"> – single/multiple delivery sites – organisation goes to customer/vice-versa 	<ul style="list-style-type: none"> · Overtly a marketing perspective. · Ignores the presence of the customer and the nature of the customer provided input. · Focuses on higher level constructs; therefore is not ideal for identifying and recommending characteristics for delivery systems at the activity and task levels.
Shostack (1987)	<ul style="list-style-type: none"> · Complexity · Divergence 	<ul style="list-style-type: none"> · Complexity is based on the number of process steps which a subjective number determined by the modeller. · Divergence description very similar to worker discretion.
Schmenner (1986)	<ul style="list-style-type: none"> · Customer Interaction/Customization · Labour Intensity 	<ul style="list-style-type: none"> · Conflates interaction and customisation into a single measure, which wrongly assumes the two move together as they vary. For instance, this wrongly assumes that high-interaction must also be highly customised. · Labour intensity is defined as a ratio of the cost of labour to the value of the plant/equipment.

Author(s) (Year)	Characteristics Utilised	Analysis
Wemmerlöv (1990)	<ul style="list-style-type: none"> · Process rigidity/fluidity · Degree of Customer Contact · Degree of Routinisation · Degree of worker discretion · Worker skill level · Arrival pattern of inputs · Volume level & number of customers served simultaneously · Response time from customer-initiated request; amount of preparatory work which can be done 	<ul style="list-style-type: none"> · Describes the potential for routinisation of the process, which has implications on the throughput volume. · Suggests higher levels of rigidity equate to higher potential for routinisation. · Problematic due to subjectivity; author admits that the judgement of the analyst using the taxonomy is one of the critical factors of determining rigidity or fluidity.
Silvestro <i>et al</i> (1992)	<ul style="list-style-type: none"> · Number of customers per day · A set containing: · Equipment/people centric delivery · Customer contact time · Degree of customisation · Degree of discretion · Value added in front- or back-office · Product or process focus 	<ul style="list-style-type: none"> · Compares number of customers per day against this set of characteristics to create three organisational archetypes. · Assumes the entirety of the organisation falls under the same categorisation. The research of Ponsignon <i>et al.</i> (2011) shows how the organisation can successfully choose multiple categorisations.
Ponsignon <i>et al.</i> (2011)	<ul style="list-style-type: none"> · Process rigidity/fluidity · Level of customisation · Set of characteristics containing: · Degree of routinisation · Degree of automation · Level of skills · Level of discretion · FO-BO configurations 	<ul style="list-style-type: none"> · Compared the organisation's chosen service concept customisation level against the required set of delivery system characteristics. · Found different service concepts can successfully exist within the same organisation, but that different delivery systems are required.

It is important to note exactly what is being analysed in this research. Many of these classification schemes attempt to describe the organisation, and further outline the operational considerations which may provide benefits for managers within those organisations. However, the organisational-level classification is not always the most appropriate view, and that often a lower-level view (*i.e.* process- or activity-level) is more helpful (Wemmerlöv, 1990; Apte & Mason, 1995).

3.6 Chapter Summary

The following section outlines the key points emerging from the review of the literature on design of delivery systems.

The delivery system is the organisational means of delivering the requested output to the customer. There are strategic influences which affect the design of delivery systems to achieve the goal of optimal performance. An operations perspective to obtain optimal performance considers the alignment of the delivery system with the service concept the organisation intends to deliver to a target market/set of customers. Research has shown that inadequate design of the delivery system results in sub-optimal performance of the delivery system.

The transformation process performed within MCPs requires information-centric inputs from the claimant, and produces information-centric outputs to the customer. This delivery system can be initially characterised through the use of the 4 Vs (volume, variety, variation, and visibility.) The extant literature provides detail on the design characteristics of delivery systems in order to inform academics and practitioners on optimal management of such systems.

From this literature, there is a similarity in context between this research and that of Ponsignon *et al.* (2011). The work of Ponsignon *et al.* similarly examined the alignment within the organisation between the service concept and the target market through the use of the Service Strategy Triad in an information intensive environment. The research evidenced the need for different delivery system designs in order to optimally deliver variations on a service concept to target markets. The more customised the service concept, the more fluid the

characteristics of the delivery system. Conversely, the more standardised the service concept, the more rigid the characteristics of the delivery system.

In the research, the authors employ the set of characteristics shown in Table 3.6.

Table 3.6 - Design characteristics of service delivery systems (from Ponsignon *et al.*, 2011)

Characteristic	Source
Degree of Routinisation	Wemmerlöv (1990); Buzacott (2000)
Degree of Automation	Kellogg & Nie (1995); Schmenner (1986); Silvestro <i>et al.</i> (1992); Apte & Vepsäläinen (1993)
Level of Skills	Kellogg & Nie (1995); Silvestro (1999); Chase & Tansik (1983); Buzacott (2000)
Level of Discretion	Silvestro <i>et al.</i> (1992); Buzacott (2000); Lovelock (1983)
Front Office – Back Office Configuration	Metters & Vargas (2000)

The alignment between the service concept and the target market and delivery system design characteristics is of particular interest for the research question in this thesis.

Finally, the strategy of postponement has been shown to reduce risk in the cost of production by postponing customisation work to a point as close to the customer as possible. This approach requires the completion of as much standardised work as possible prior to the point of customisation, which is triggered by the customer order. There is an identified need for more research on the application of Postponement in the context of information-centric delivery systems.

The following chapter will draw together the identified gaps from the two literatures and present a conceptual framework to guide the empirical research.

4 Conceptual Framework

This chapter presents the focal concepts and characteristics drawn from the two literature review chapters. First, the gaps identified in the literature reviews of the previous two chapters will be reviewed and synthesised for this research. The focal concepts and characteristics from the synthesis will be briefly discussed and illustrated. Additionally, because this research draws on contributions from the discipline of law, the concepts from that literature will be synthesised with the relevant concepts from OM. Finally, a conceptual framework created from the synthesis will be presented and discussed.

The conceptual framework is derived from the extant literature, combining the theory presented in conceptual models of strategic alignment of operational delivery systems (Roth & Menor, 2003; Heskett, 1987); characteristics from the establishment of Mass Claims Processes (Wühler, 1999; Wühler & Niebergall, 2008); and delivery system design characteristics (primarily: Wemmerlöv, 1990; Chase, 1981; Schmenner, 1986). This conceptual framework will be used to guide the empirical phases of this research.

4.1 Synthesis and areas for development of the Literatures

The reviews of the OM and MCP literatures revealed specific gaps related to this research. This section will present a brief reminder of those gaps, and present a synthesis of the gaps. The synthesis will then be used in the construction of a conceptual framework for use in this research.

The literature informing design in delivery systems was examined, and several limitations of the extant literature were identified.

1. There is very little research on the application of postponement in the context of information-centric organisations.
2. The research discussing the protection of the organisation's strategic core has not examined those organisations where the front-office design is based on efficiency while the back-office is designed to hold customised processes.

3. Limited research has been performed examining the alignment required within the Service Strategy Triad, but there is a lack of research examining alignment in a non-competitive, not-for-profit environment.
4. Additionally, the research on the Service Strategy Triad assumes the constituent parts of the triad have the ability to be adjustable. There is a lack of research which explores a non-flexible environment for delivery system design, such as that found in a MCP.
5. The extant OM literature has not yet empirically addressed the unique challenges presented by the context of Mass Claims Processes in such a way as to better inform managers and academics on the operation of these organisations.

From the MCP literature, the following limitations were illustrated (in summary):

1. The management of variety of inputs from claimants in order to increase efficiency.
2. The emergence and management of interrelation of claim data.
3. The effect of recursive movement of claims within the claims treatment process.
4. The lack of research to inform design of the delivery system for MCPs.

These observed limitations in the extant literature provide the basis for the main objective of this research:

- To explore the design characteristics of delivery systems in information-centric Mass Claims Processes.

The objective of the study is researched using a theory-building approach. The following research question is formulated and addressed empirically:

- What are the delivery system design characteristics for information-centric Mass Claims Processes?

4.2 The unit of analysis for this research

In chapter 3, the unit of analysis was defined as what is being observed and investigated. Yin (2013) emphasises how the case method focuses on the unit

of analysis, and that the unit of analysis should be derived from the research question. Multiple units of analysis can exist within the research, but whether single or multiple units the boundaries of analysis must be defined in order to provide a domain in which the emerging theory applies (Barratt *et al.*, 2011; Wacker, 1998).

This study focuses on the design of delivery systems, which previously defined as the subset of the organisation which performs transformations requested and described by the customer (Sampson, 2000; Sampson & Froehle, 2006; Chase & Apte, 2007; Heskett, 1987 *inter alia*), and thus creates outputs for the customer. This was conceptually grounded in the *Transformational Model*; widely accepted as a foundational analytical tool within the OM discipline.

By comparison to the literature focusing on information-centric organisations, in an analysis focusing on operations with the information economy Karmarkar and Apte (2007) highlight units of analysis at multiple levels: sector, industry, company, jobs, and operations tasks. This draws attention to the concept of boundary, and where the boundary determining and outlining the unit of analysis is placed for this research.

An argument was presented in chapter 3 for the adoption of a systems perspective of operations for this thesis. The systems paradigm takes the position that a system in focus can be seen as a hierarchy; structurally divisible but functionally indivisible (Ackoff, 1980). It was argued that the MCP could logically be described as the '*enterprise*' or '*organisation*'. It was also shown that within the organisation exists a collection of processes responsible for transforming inputs from the customer into outputs requested by the customer. These are defined as the '*Operate Processes*' which sit alongside '*Manage Processes*' which provide strategic direction and governance, and '*Support Processes*' which perform other activities (such as finance, human resources, and information systems provision) to further enable the Operate Processes (AMICE, 1989; Smart *et al.*, 1999b). This description of the Operate Processes corresponds directly with the concept of a '*delivery system*' that creates value for customers, as previously defined.

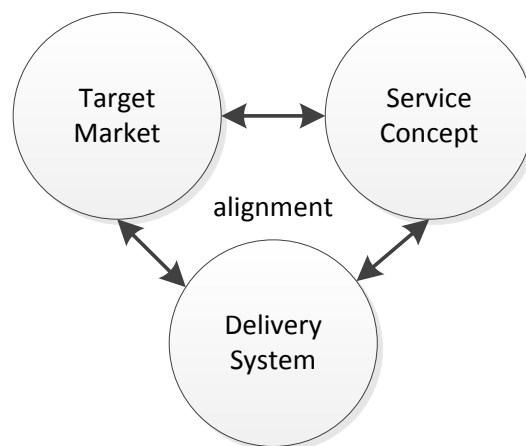
This thesis focuses on these collections of transformational processes, the ‘*delivery systems*’ as the unit of analysis.

4.3 The Service Strategy Triad in Mass Claims Processes

We begin with the Service Strategy Triad (SST) (Roth & Menor, 2003). The SST framework illustrates how optimal performance for the organisation is achieved through alignment between the delivery system, the target market, and the service concept. Adjustment of any of the three elements requires that the other two elements adjust accordingly in order to perform optimally.

A representation of the original framework is illustrated in Figure 4.1 below.

Figure 4.1 - The Service Strategy Triad (Roth & Menor, 2003)



This framework is populated with three constructs from the OM literature. The MCP literature contains discussion on similar constructs. Both sets of constructs will be described and compared in the following section.

4.3.1 Related constructs from the Mass Claims Process literature

We recall that Mass Claims Processes are created after a legal process determines that a set of people sharing similar characteristics deserve reparations or assistance of some form. This process creates a mandate which very generally describes ‘*what*’ will be delivered to ‘*who*.’ The reparation or assistance produced for the claimant can vary in substance and composition and is considered the final output created by the organisation.

Further, from MCP literature, we recall that the evidentiary standard should consider the chosen position of balance between due process/swift justice and the desired operational efficiency. This, in turn, influences the nature of the output (the '*what*') created for the claimant. From this, it is logical to say that the choices made which determine the ultimate degree of accuracy and/or efficiency describe the level of justice present in the reparation that is to be delivered to the claimant. This focus on the '*what*' that is delivered bears strong resemblance to the description of the Service Concept; defined as the customer benefit package (Karwan & Markland, 2006).

Further, the mandate clearly defines those eligible to receive the output produced by the Mass Claims Process. This concept of a legally defined eligible group is indiscernible from the concept of Target Market, which Roth & Menor (2003: 148) define as the 'right' group of recipients of the service.

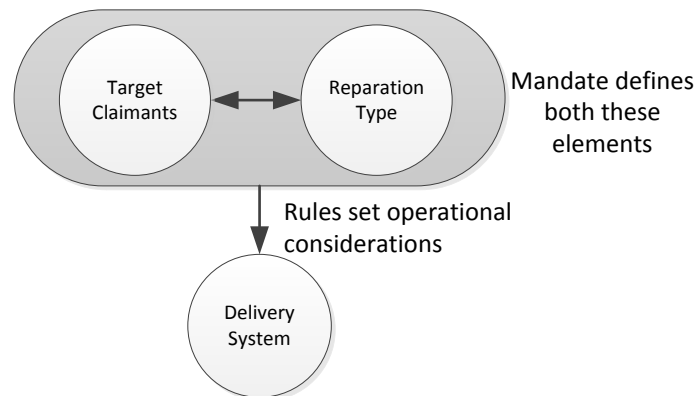
The '*how*' is determined by the mandate, which acts as the foundation for the creation of a set of provisional rules for claims treatment procedure (Wühler, 1999). These rules guide the operational considerations for a Mass Claims Process. These rules generally describe the entire cycle of claims processing, "*from the time of filing the claim, up to ... the amount of recommended compensation*" (Wühler, 1999: 263). The formation of '*how*' the work is to be performed (the collection of people, processes, and tools/technology tasked with delivering the service concept) is the responsibility of the Secretariat.

A conceptual similarity exists between the definition of a delivery system from the OM literature, and this collection of people, processes, and tools/technology described in the Mass Claims Literature. As described in section 3.3 above, there is a general agreement in OM that the delivery system is the collection of processes which deliver the intended output to the customer (Chase & Apte, 2007; Heskett, 1987; Hill *et al.*, 2002; Zomerdijk & Vries, 2007; Frei & Harker, 1999).

As a result of the parallels drawn between these constructs, one can then populate the Service Strategy Triad with the constructs from the Mass Claims Process literature. This is illustrated in Figure 4.2 below. However, the Mass Claims Process literature does not emphasise alignment between the elements

of the triad for MCPs; but instead places the delivery system in the position of simply conforming to the boundaries and goals set by the mandate (Wühler, 1999; Wühler & Niebergall, 2008; Henzelin *et al.*, 2006). The mandate is rigid in defining both the reparation to be delivered (service concept) and the population of eligible claimants (target market). The design of the delivery system occurs after the creation of the mandate and rules. This removes the possibility of three-way alignment between all elements as described by the original research by Roth & Menor. Instead, the design of the delivery system is forced to conform to the hard boundaries set in the other two elements to achieve alignment.

Figure 4.2 - MCP concepts within the SST construct



There is no evidence from the Mass Claims Process literature of adjustments in either the target market or the service concept triggered by the capabilities of the delivery system. As a result, the delivery system is the only element of the triad with the ability and responsibility of adjusting in order to achieve the ‘optimal performance’ for the organisation discussed at the start of this section.

4.4 Delivery System Design in Mass Claims Processes

In the section above, it was shown that the establishment of the target market/eligible claimants and the service concept/reparation type influences the creation of the delivery system. The design of the delivery system draws from a set of design characteristics discussed in both the OM & MCP extant literatures. This section draws from that discussion.

4.4.1 MCPs within the delivery system classification schemes

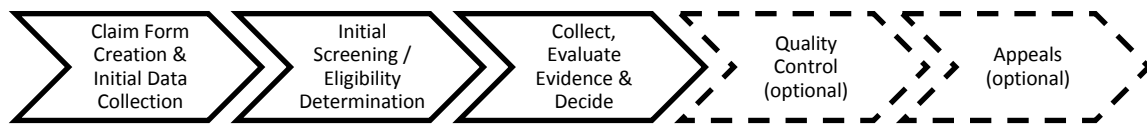
This research aims to contribute to the literature on delivery system design for the context of MCPs. A helpful place to begin is to place such organisations within the relevant classification schemes. The MCP literature provides sufficient detail to begin this classification. Such organisations expect a high volume of claims to be submitted prior to a pre-determined date. A known date allows the organisation to understand the variation in demand over time. In the case of MCPs, once the date for submitting claims to the process passes, the demand is known. Claims added after this date are problematic for the organisation, in that they can create valuation errors for the entire set of completed claims.

The MCP literature states that each claim is similar in the circumstances surrounding the need for reparation, and that the mandate of the organisation renders the same small set of outputs to each claimant. The MCP is similarly charged with increasing the homogeneity of claims, which increases the potential for standardisation of the treatment process through techniques such as batching/grouping. Standardisation is shown to deliver increases in efficiency. From this perspective, the variety of transformational activities performed by an MCP can be considered to be very low.

The MCP literature presents little discussion on visibility. What is presented focuses largely on issues of centralisation/de-centralisation of the delivery system. The decision on location was not discussed in any depth, except to say that the presence of regional points of contact with the delivery system allowed for more data collection in the affected regions. In this case, in order to deliver higher levels of efficiency, the delivery system design literature discourages highly-visible production processes.

Further, observations on the generalised MCP process from chapter two (Figure 4.3, below), show that a claim would progress from stage to stage in a sequential dependency.

Figure 4.3 - Representation of a generalised MCP drawn from the literature



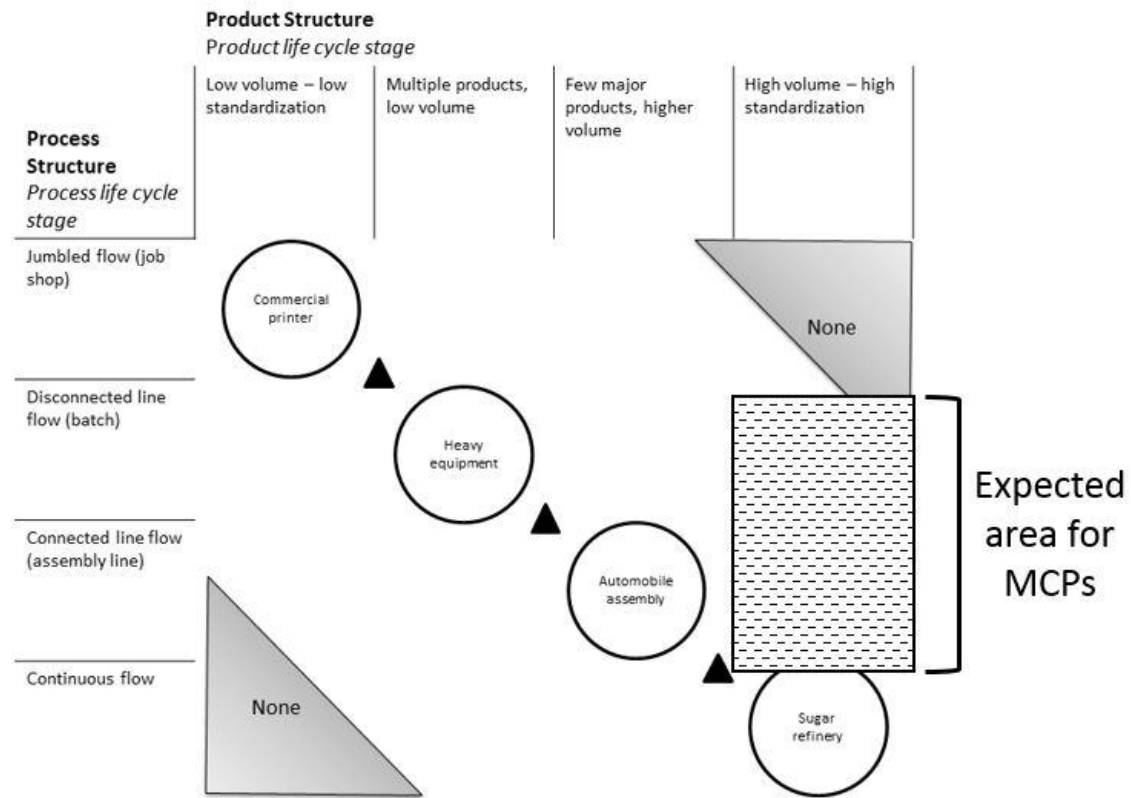
Given this set of observations from the two literatures:

- High volume
- Low variation
- Low variety
- Use of batching/grouping techniques
- High levels of standardisation
- Sequential dependency

Within the Hayes and Wheelwright (1979) Product-Process Matrix, the above summary places MCPs in the '*High volume – high standardization*' stage on the Product Structure horizontal axis.

However, these characteristics also place MCPs in an area transcending the boundary between two Process Life Cycle stages: '*Disconnected Line Flow (Batch)*' and '*Connected Line Flow (Assembly Line)*'. Using these observations to place MCPs within the Hayes & Wheelwright matrix, one would expect to find MCPs off the main diagonal, as shown in Figure 4.4 below.

Figure 4.4 - Product - Process Matrix with expected area of MCPs

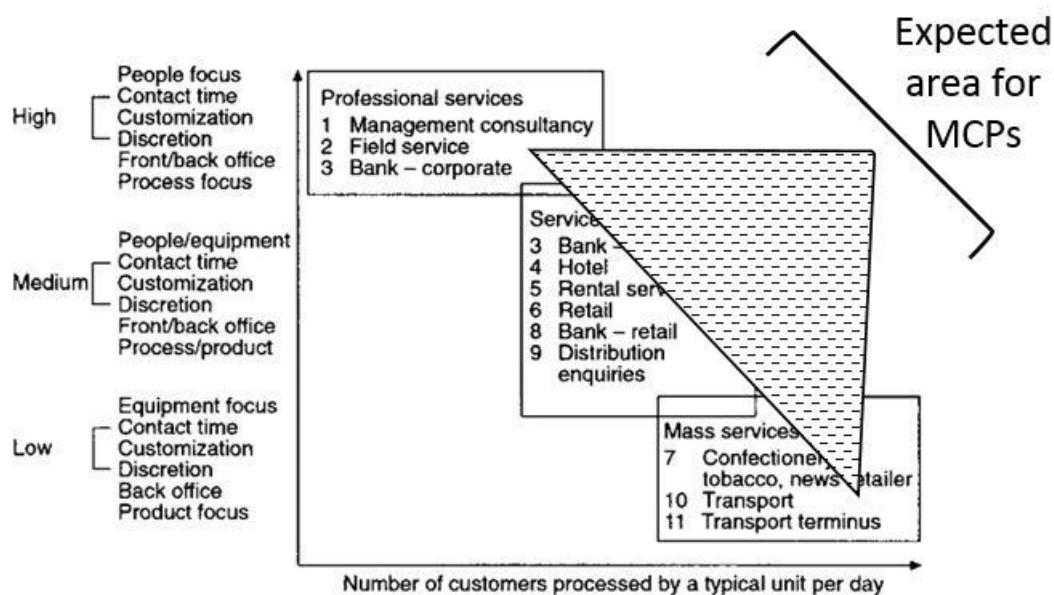


Placement off the diagonal implies an inherent level of inefficiency in the operation; achieving none of the benefits of either cost reduction through assembly line production, or increasing levels of customisation through batch production.

Given the same characteristics, one would similarly expect to find these organisations populating a similar off-diagonal area in the Silvestro *et al* (1992) classification scheme. More exact placement on this scheme is more problematic due to the nature of the service offering. MCPs must offer due process, whereby each claim receives some degree of individual attention. Problematic or difficult claims can receive high levels of consideration and be heavily 'people-focused' (using the authors' terminology from the scheme); standard claims will receive enough individual consideration to be classified within a batch for standardised valuation and be equipment-focused during the transformation. This creates a range of potential placement across three categories on the vertical axis.

On the horizontal axis, the high volumes of claims received places MCPs on the right side of the graph. The authors use a measure of 'customers processed daily'; MCPs will clearly not process the extremely high daily volumes of a train operator/station, but do equal the numbers of a high street bank or a news retailer (using examples drawn from the Silvestro *et al* matrix). Using these observations, the somewhat off-diagonal position can be illustrated on the matrix itself. This is shown in Figure 4.5.

Figure 4.5 – Silvestro *et al* (1992) service classification archetypes with expected area of MCPs



Again, the off-diagonal position implies that MCPs possess characteristics which align with inherent inefficiency. This raises questions about whether MCPs have no choice but accept inefficiency and thus abandon operational goals of cost and time reduction; or whether extant theory does not accommodate the contextual characteristics associated with MCPs, thus providing support for research in this area.

This research embraces the questions presented above, and explores how MCP delivery systems differ in the adjustments to process structure and characteristics used in order to achieve operational goals on performance. The resultant characteristics will then be compared against these classifications to better understand the overall nature of MCPs and how they may differ or adhere to traditional archetypes from the literature.

4.4.2 Characteristics of MCP delivery systems

Extant theory and empirical observations describe a need for further exploratory research into the design of service delivery systems. The service strategy triad emphasises alignment between the service concept and the design of the service delivery system. The triad, however, as a theoretical model, cannot specify the design characteristics need to create alignment. The need for empirical exploration of how the service concept impacts the design of the delivery system was highlighted by Safizadeh *et al.* (2003) and Zomerdijk and de Vries, 2007. To address this need, empirical data will be collected on each of the elements of the service strategy triad: target markets, service concepts, and service delivery system design characteristics. The research focuses on the design characteristics of the service delivery system and how these characteristics must align with an inflexible target market and service concept, both of which are rigidly defined through legal decisions.

The work of Ponsignon *et al.* (2011) provided analysis of delivery system design characteristics in research on contextually similar (information centric) operations. The empirical findings of that research suggested:

“(T)he extent of customisation of the service concept is a primary influence on the design characteristics of the service delivery system”; and further “(t)he more customised the service concept, the greater the employee skills, the greater the employee discretion, the less routinized tasks, and the less opportunity for automation”
(Ponsignon *et al.*, 2011; 339)

The set of delivery system design characteristics (and source reference) employed in that research is shown in Table 4.1 below.

Table 4.1 - Delivery System Design Characteristics from Ponsignon *et al.*, 2011

Characteristic	Source
Degree of Routinisation	Wemmerlöv (1990); Buzacott (2000)
Degree of Automation	Kellogg & Nie (1995); Schmenner (1986); Silvestro <i>et al.</i> (1992); Apte & Vepsäläinen (1993)
Level of Skills	Kellogg & Nie (1995); Silvestro (1999); Chase & Tansik (1983); Buzacott (2000)
Level of Discretion	Silvestro <i>et al.</i> (1992); Buzacott (2000); Lovelock (1983)
Front Office – Back Office Configuration	Metters & Vargas (2000)

We recall the discussion presented in chapter 3 focused on how a delivery system design must adjust to input type for optimal performance. Morris & Johnston (1987) proposed that ‘*what*’ is being transformed affects the design and operation of the delivery system. This research explores information centric operations to determine the alignment between the components of the Service Strategy Triad; a contextually similar position to that of the Ponsignon *et al* (2011) study. Thus, the above set of delivery system design characteristics has been established as an appropriate lens through which to examine information centric delivery systems.

It is helpful at this point to compare and contrast this set of characteristics from OM, with the delivery system design characteristics from the MCP literature. This set of characteristics was presented in chapter 2, but for ease of reference is presented again here in Table 4.2 below.

Table 4.2 - Delivery System Design Characteristics from MCPs

MCP Characteristic	Source
Heterogeneity of processes	Karrer (2005)
Fixed rules vs. Employee discretion	Holtzmann & Kristjansdottir (2007)
Worker skill level	Holtzmann & Kristjansdottir (2007); Karrer (2005); Wuehler & Niebergall (2008)
Degree of standardisation of valuation method	Niebergall (2009)
Centralised/Decentralised structure	Wuehler & Niebergall (2008)
Degree of standardisation of decision making method	Carrillo & Palmer (2010)
Use of IT as a facilitation tool	Heiskanen (2003); Karrer (2005)
Batching	Wühler & Niebergall (2008)

The two sets of characteristics can then be compared for similarities. The characteristics which describe the same or highly similar concepts are mapped directly against each other. This comparison is presented in Table 4.3 below.

Table 4.3 - Comparing the characteristics from both literatures

Delivery System Design Characteristics from OM	aligns with	Delivery System Design Characteristics from MCPs
Degree of Routineness	-	<ul style="list-style-type: none"> • Heterogeneity of processes • Degree of standardisation of valuation method • Degree of standardisation of decision making method
Degree of Automation	-	Use of IT as a facilitation tool
Level of Skills	-	Worker skill level
Level of Discretion	-	Fixed rules vs. Employee discretion
FO – BO Configuration	-	Centralised/Decentralised structure

Degree of Routinisation (Wemmerlöv, 1990) is a multi-dimensional construct which describes the flexibility of the constituent parts of the delivery system, and is related directly to the concept of process rigidity or fluidity. Highly rigid processes are described as tending to produce highly standardised outputs; this would be characterised as a high degree of routinisation. Highly fluid processes are conversely described as tending to produce highly customised outputs; this being characterised as a low degree of routinisation.

The related characteristic of 'heterogeneity of processes' (Karrer, 2005) from the MCP literature describes the level of standardisation in the processes which treat individual claims. Karrer states that if the MCP delves into the details of each case, then the level of heterogeneity is high. When viewed in the perspective of the characteristic of routinisation, the more heterogeneous the process, the lower the degree of routinisation. Conversely: the more homogenous the process, the higher the degree of routinisation.

Additionally, the MCP characteristics of the 'Degree of Standardisation of the Valuation Method' and 'Degree of Standardisation of Decision Making Method' are also linked to the characteristic of 'Degree of Routinisation.' These characteristics describe the standardisation of sub-sections of the claim treatment process (Niebergall, 2009; Carrillo & Palmer, 2010). Logically, one can observe that as more sub-sections of the process are standardised, the more routinised the overall claims treatment process becomes. It is for these reasons that these characteristics are merged into the singular characteristic of 'Degree of Routinisation.'

The OM construct 'Degree of Automation' describes the extent to which the delivery system uses technology to create outputs (Apte & Vepsäläinen, 1993; Silvestro *et al.*, 1992; Kellogg & Nie, 1995). This aligns very well with the discussion from the MCP literature advocating the use of information technology to facilitate claims treatment (Heiskanen, 2003; Karrer, 2005). The level of similarity between the two justifies the merger into the single characteristic of 'Degree of Automation.'

'Level of Skills' and 'Worker Skill Level' are clearly similar in title and content. The MCP literature makes clear distinctions between three levels of workers:

- Highly-qualified and highly-trained specialists with a depth of experience in MCPs.
- Mid-level trained and qualified specialists in the relevant field. These workers may or may not have experience in past MCPs.
- Base-level workers, narrowly trained and skilled, who can make decisions based on explicit rules or guidelines.

The OM literature aligns with this generalisation whereby skills increase as the level of customisation of outputs increases (Chase, 1978; Chase, 1981; Chase & Tansik, 1983; Larsson & Bowen, 1989). The level of similarity between the two justifies the merger into the single characteristic of 'Worker Skill Level'.

'Level of Discretion' from the OM literature refers to the ability of a worker to alter the offering to the customer (Buzacott, 2000; Lovelock, 1983; Silvestro *et al.*, 1992). Given higher levels of discretion, a worker can create a different output for the customer if the worker determines that an altered output is more appropriate in the context. This highly resembles the linked construct from the MCP literature. 'Fixed rules vs. Employee discretion' describes precisely the same choice: are the rules rigidly enforced or are employees given discretion to make choices about how to best treat the claim (Holtzmann & Kristjansdottir, 2007). The similarity of these characteristics justifies the merger into the single characteristic of 'Degree of Employee Discretion.'

'Front Office – Back Office Configuration' (FO-BO) discusses the separation of customer-contact processes called the 'front office' (Chase, 1978), from the core processes of the delivery system which render the output to the customer, called the 'back office' (Skinner, 1974). The separation is based on the assumption that efficiency can be increased if the core processes are protected from the variety presented by the customer (Frei, 2006; Thompson, 1967). OM research has shown the level of separation to be a strategic decision (Metters & Vargas, 2000). Through decoupling these processes, the delivery system can achieve higher levels of efficiency; or by tightly coupling the FO-BO configuration the delivery system can be more effective in satisfying the customer. The MCP literature presents a very similar discussion on when to centralise the delivery system for efficiency purposes, and when to decentralise

the structure in order to have closer and more frequent contact with claimants (Wühler & Niebergall, 2008). The similarity of these characteristics justifies the merger into the single characteristic of 'FO/BO Configuration'.

In addition to the characteristics identified from both literatures, this research will also examine the design characteristics of Postponement and Batching. Batching appears in the MCP literature as a relevant technique for increasing efficiency for limited-time scenarios with a large volume of claims; where a set of claims are similar in content & issues, allowing for similar solution approaches (Wühler & Niebergall, 2008). From the OM literature, 'batching' refers to the intentional grouping of jobs or customers to allow several customers to be served at one time to increase efficiency; and has been shown to be applicable to legal processes (Simons & Russell, 2002).

The OM characteristic of Postponement proposes the completion of as much standardised work as possible, while delaying customisation work to a point in the process as close to the customer as possible. Postponement allows the completion of standardised work without the presence of customer input, increasing efficiency (Alderson, 1950; Bucklin, 1965).

Postponement does not appear in the MCP literature. It was emphasised earlier that "*(v)ery little has been written with respect to the exploitation of the transferability and applicability of postponement*" to customer- or information-centric delivery systems (Yang *et al.*, 2010: 471). Thus, the inclusion of postponement in this research aims to contribute, to both literatures, contextual research within this theoretical domain.

From the synthesis provided above, a focal set of characteristics is presented for use in this research. The list below draws on concepts synthesised from the OM literature focusing on information centric delivery system design; and from the MCP literature describing delivery system design.

- Degree of Routinisation
- Degree of Employee Discretion
- Worker Skill Level
- Degree of Automation

- FO/BO Configuration
- Batching techniques
- Postponement

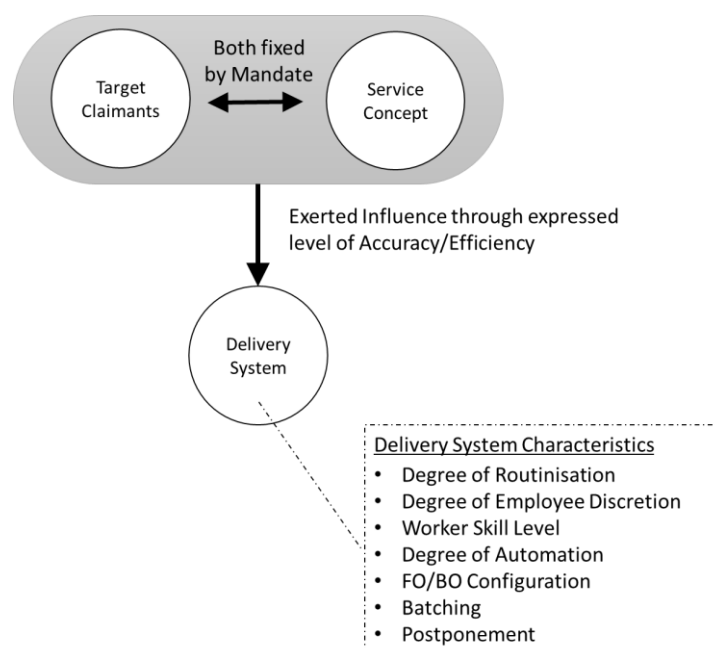
The concepts on this list will form the focus of the empirical research in Mass Claims Processes.

4.5 The Conceptual Framework for this research

From the discussion above, the various constructs can be logically placed together to illustrate the conceptual framework used for this research. This framework will be used to collect and analyse empirical data for the purpose of addressing the research question: 'What are the delivery system design characteristics for information-centric mass claims processes?'

The Service Strategy Triad can be translated to the unique aspects of Mass Claims Processes; recognising the inherent rigidity of the target market, for example, or how the MCP mandate tightly defines the service concept. The delivery system design element can be described by a set of design characteristics which are derived from a synthesis of the relevant literatures. The characteristics illustrated above are drawn together to form the Conceptual Framework for this research. The framework is presented in Figure 4.6 below.

Figure 4.6 - Conceptual Framework for this research



This research examines Mass Claims Processes to observe the delivery system characteristics illustrated above. This conceptual framework will underpin the empirical work which will collect data to address the research question:

*What are the delivery system design characteristics for
information-centric Mass Claims Processes?*

Addressing this question will require the collection and analysis of a sound body of evidence, from which new knowledge can be produced. This contribution to knowledge will be drawn from the exploration of several areas: the contextual factors associated with MCPs (their creation, the mandate, the rules, and the organisational goals); the characteristics of the delivery systems established from the rules and mandates to meet those goals; and the operational experiences which emerged from the claims treatment process. Observations from the exploration of the cases will be synthesised and discussed. Conclusions can then be drawn based on the data collected and analysed.

5 Research Methodology

The previous chapters have presented the relevant literature for design of delivery systems in the context of information-centric Mass Claims Processes; and presented a conceptual framework which will underpin the data collection phases of this research. This chapter will present and describe the research methods employed within the data collection. First, the philosophical assumptions of the study are discussed. The case-based research method will be discussed and justifications for the selection of such an approach are presented. The data collection procedures will be presented and explained. This chapter will also include a discussion on the measures taken to ensure the reliability and validity of both the constructs used to collect data and the data collected.

5.1 Philosophical assumptions

Research philosophy presents the discussion about the scientific approach to academic investigation in regards to ontological and epistemological assumptions. Ontology is the study of the nature of the perception of reality. Epistemology is the philosophical discourse which clarifies the conditions and boundaries of what can be considered 'justified' knowledge (Johnson & Duberley, 2000); discussing the nature of knowledge about reality and how knowledge can be acquired (Burrell & Morgan, 1979). The design of the research approach for any particular study is strengthened by a foundation built on the appropriate underlying philosophical assumptions (Lincoln *et al.*, 2011).

From the ontological perspective, this research must subscribe to the belief of an objective reality, where such things as delivery systems, technologies, process actors, and the processes themselves exist independently of external perception. Additionally, this research approach takes an epistemological perspective where knowledge about the ontological 'reality' is mediated by the social actors' perception of that reality. The delivery systems at the centre of this research are the emergent result of the interactions between technology, the physical environment, and the people who attempt to make sense of their actions in this environment. This philosophical perspective aligns with the critical realist tradition. Critical realism takes the position that the world contains

elements of social construction, observed using social mediations in transactions of human 'knowers' who have a perception of an independent reality (Johnson & Duberley, 2000). Critical realism is also "*ontologically committed to the concept of 'emergence' – that is, the belief that new entities and powers emerge from the complex interplay between mechanisms and entities*" (Reed, 2009: 431).

In order to understand the delivery system and the emerging organisational phenomena associated with the delivery system, this research investigates the empirically observable components of the delivery system using the general characteristics that describe the design of the delivery system. It is generally acknowledged in the critical realist perspective that the knowledge generated using this approach may not be accepted with complete certainty, the propositions about the observed reality will enable further research to falsify them by controlling for their effects in the real world (Reed, 2009; Meredith, 1998). The development of new constructs to produce propositions about 'real world' entities, structures, and the relationships between them is particularly suited to the case-based research approach (Easton, 2010; Eisenhardt & Graebner, 2007; Meredith, 1998).

5.2 Case-Based Research

Case research has proven itself to be a very effective way to generate insight for both research and practice (Voss *et al.*, 2002; Stuart *et al.*, 2002; Eisenhardt & Graebner, 2007). It has been shown to be effective in research where the investigator is objective, not controlling events under observation (Yin, 2013) as would occur under approaches such as Participant Observer or Action Research.

However, the greatest strength in application is found in the facilitation of exploratory studies where: prior theory is underdeveloped for the new context; or where the exploration occurs where processes, boundaries, and constructs within the investigations are not known at the beginning of the research project (Barratt *et al.*, 2011; Eisenhardt, 1989; Yin, 2013) Voss (2009) lends support to the use of an exploratory case study as a beginning to the formal research process. This exploration is the first of three particular strengths of case study

research involving the interactions between technologies, processes, and workers from Benbasat *et al.* (1987). First, the exploratory investigation allows the researcher to grasp the interactions and emergent phenomena which emerge from the environment. Second, case method is helpful when understanding requires the natural setting or a focus on real events in practice is needed; this will contribute to better grounding in practice. Third, case studies lend to understanding the causal chain leading to success or failure of a delivery system, allowing observation of the various actors and events in a chronological pattern that influenced a final outcome.

The support from Benbasat *et al.* (1987) reiterates how the approach is effective in cases where the context is particularly complicated by the changes in the interactions of people, technologies, and the organisation's operational processes. In settings such as these, the research environment is rich with potential to build theory on the relationships and interactions between identified variables in the case (McCutcheon & Meredith, 1993). To better understand the dynamic environment within the case organisation, one must become familiar with the processes, underlying principles, and the cause-and-effect mechanisms therein. This level of familiarity requires an intensive engagement with the phenomenon under study. Edmondson & McManus (2007) observe that cases require the study of detailed, and often very rich sources of qualitative data which allows the researcher to draw from the experiences and interpretations of practitioners and theorists. The result gives the researcher a clearer picture on the contextual conditions where the theory is applicable. Wacker (1998) identified this act of identification as a crucial component of building theory; understanding the domain in which the theory holds.

In summary, there is significant support in the literature for the use of case study method for the purposes of construct development & refinement, and theory building (Ketokivi & Choi, 2014; Eisenhardt & Graebner, 2007; McCutcheon & Meredith, 1993; Voss *et al.*, 2002; Yin, 2013). However, case studies may use existing theory to frame the research effort, as opposed to a focus on phenomena emerging from the research (Barratt *et al.*, 2011). Theory-driven research uses a deductive approach from the application of specific theory, and is informed by that single theoretical lens. Alternatively,

phenomenon-driven research focuses on the study of the phenomenon which emerges from the case. This approach draws from the various relevant literatures. This research is phenomenon-driven, exploratory, theory-building case method research.

5.3 Rationale for adopting a case-based research design

When conducting field research in an attempt to make contributions to knowledge, one must have a firm foundation of internal consistency between the research question, the theoretical domain, the research design, and the constructs which emerge from the research activity (Edmondson & McManus, 2007). The research design, therefore, must align with the other elements to fully support the resulting contribution to knowledge. The literature presents a widely-held view that typical justifications for the use of case-based research designs include theoretical paucity which stem from addressing ‘*how*’, ‘*what*’, or ‘*why*’ research questions; and increasing the contribution to practicing managers through the exploration of complex phenomena within the context of the organisation (Voss *et al.*, 2002; Barratt *et al.*, 2011; Ketokivi & Choi, 2014). This thesis has already established a paucity of research in this area; and has similarly established the Mass Claims Process as a complicated and dynamic environment with phenomena which require a depth of exposure and exploration provided by case-based research design.

The research question at the heart of this thesis asks a ‘*what*’ question; which is, by its very nature, a theory-building question. Theory-building research is required in this case to better understand the principles of delivery system design in this context; deductive research approaches which start with the ‘general’ and move toward the ‘particular’ are not appropriate to this type of question. Extant theory may provide guidance to the general development of delivery systems in this context; however this theory does not inform development that considers the phenomena specific to Mass Claims Processes. Ketokivi & Choi (2014) warn that starting with pre-formed predictions about the behaviour of the phenomena prior to observation will limit and potentially bias the research. This bias will prevent the creation of insights and data which might emerge from exploration (Meredith, 1998). Given the ‘*what*’-type

research question on which this thesis is centred, case-based research is supported by the literature as the most suitable approach to address the paucity in the extant literature (Yin, 2013).

Similarly, the need to observe and capture the complicated and dynamic nature of Mass Claims Processes is also well-aligned with the case-based research method. The literature illustrates how MCP delivery systems must tread a fine line between high levels of legal accuracy and the need for frugality and efficiency. The legal aspect of MCPs requires workers to navigate a complicated and changing set of laws which govern a process. Often, these processes face higher levels of complication due to the emergent interrelation of claim data, which can further delay successful completion and increase costs. These phenomena were shown to be unpredictable and out of the control of the organisation. Case research is particularly suitable for research conducted where there is no control over events (Yin, 2013). The exploration and observation in case study enables the researcher to better understand the unfolding of events and the causal relationship between those events (Stuart *et al.*, 2002; Edmondson & McManus, 2007).

Each causal relationship, however, cannot be observed in isolation. It must be considered as a part of the system as a whole (Checkland, 1981; Melão & Pidd, 2000). This creates a highly complicated, potentially confusing set of relationships involving a number of variables that need to be recorded accurately. Case studies provide the researcher the exposure to the contextual phenomena, which allows the ability for sense-making through meaningful contact in the environment (Easton, 2010).

5.4 Case selection and overview

This section will present the overview of the cases selected and why they were selected. Support will be provided for the use of multiple cases. The selected cases will be described in an overview.

5.4.1 Multiple case study design

This research employs a multiple case study approach to build theory for delivery system design in Mass Claims Processes. There is opinion in the

literature that a single case can provide significant detail and a depth in context, especially in longitudinal studies (Ahlstrom, 2009 in Karlsson); when investigating cases that provide extreme examples; or when unique access is granted to a specific empirical setting (Yin, 2013). However, multiple cases are emphasised for theory-building research in that several cases are more apt to result in robust and testable theory (Barratt *et al.*, 2011). Eisenhardt & Graebner (2007) add further support to this approach, stating that the resultant theory is stronger as a result of the varied evidence.

5.4.2 Theoretical Sampling & Polar Cases

Cases selected for the research project should meet the criteria for selection as outlined in the methodology literature. The appropriate cases should be selected based on their ability to provide the greatest amount of insight within the given parameters of the research project, and not simply randomly selected (Barratt *et al.*, 2011). The concept of ‘theoretical sampling’ refers to the act of purposefully choosing cases likely to: provide theoretical insight, reveal particular phenomena, extend the findings of previous research, eliminate alternative explanations, and elaborate further on existing theory. Found to be a “*particularly important ... approach*” is the use of polar cases (such as high performers and poor performers) (Barratt *et al.*, 2011: 27).

In choosing polar cases, the researcher can more easily compare and contrast patterns in the data collected. The intentional choice of selecting diverse organisations provides the researcher opportunity to extend theory (Eisenhardt, 1989). The comparison of the two polar cases provides clear empirical evidence of the constructs, relationships, and causal actions from which the focal phenomena emerge. Seminal research by Pettigrew (1990) defended an approach where relevant cases were selected based on their polar attributes, and was designed to build from clear points of success and failure. The polar case approach supported extending on previous research, the development of constructs relevant to this context, and the further elaboration on theory previously generated.

5.4.3 Case Overview

As a result of the above conditions, two organisations were chosen. First, they had to conform to the necessary and sufficient conditions of being a Mass Claims Process (as elaborated in Chapter 2). In order to meet the polar case criteria, high-performing and poor-performing organisations were targeted. The two organisations are compared here in Table 5.1. The descriptions of the organisations will be further illustrated in chapter 6 (SPS) and chapter 9 (HPD).

The Single Payment Scheme (SPS) within the UK Department for the Environment and Rural Affairs had been identified as failing to reach organisational targets for several years (House of Commons, 2011). In contrast, the performance of the delivery system at the Kosovo Housing and Property Directorate (HPD) was considered within the literature as a successful MCP, in that organisational targets were achieved (NORDEM, 2006).

Table 5.1 – Case Organisations as MCPs

Condition defining MCP	SPS	HPD	Condition met for both?
Volume of claims >5,000	125,000	29,000	Yes
Respondent is a sovereign state	England	Kosovo	Yes
Large group of claimants opposite a single respondent or a small group of respondents	Yes, see above two points	Yes, see above two points	Yes
Set of claims sharing sufficiently similar issues, more efficient to adjudicate in a single process rather than in a series of individual proceedings	Land owners seeking assistance offered through state sponsored subsidy	Occupants of properties filing claims of restitution based on a set of accepted issues; claims adjudicated in a single process.	Yes
Type of reparation or assistance provided	Compensation	Restitution	n/a
Performance against objectives	Poor-performance	High-performance	n/a

The two organisations were contacted and representatives of both agreed to cooperate with the study. The Single Payment Scheme was operating normally and the Chief Operating Officer agreed to allow the researchers access to collect primary data. Additionally, the archived operational materials from previous years were made available to the researchers.

The Kosovo Housing and Property Directorate (HPD) had concluded operations several years earlier, but the former Head of the Legal Department agreed to a series of interviews to collect primary data on the design of the delivery system. As an organisation supported by public funds from the international community, the archived operational materials were publicly accessible as rich secondary sources of data.

5.4.4 Context and Culture

Scrutiny of the two organisations reveals clear differences between the two organisations, their industries, and the context in which they operate. This may well raise questions about the appropriateness of the comparisons made, and the conclusions produced by this study. However, the foundation of similarity between the two cases on which this research builds has two important aspects.

The first is that the two delivery systems share a similar operational context: each requires information-centric inputs from a large body of claimants; and each must conform to clearly-defined legal mandates and rules which guide the creation of a decision output to the claimant. The second is the unit of analysis; the '*operate*' processes (as previously described in chapters 3 & 4) which deliver the requested output to the claimant, and the characteristics which describe those processes.

By focusing on concepts common to every delivery system, the research is able to make comparisons through analysis which transcends issues of culture and context. Thus leaving the questions about the influence of different cultural environments, different industry factors, and the effects of organisational context to future research.

5.5 Methods and tools for data collection

The data for this study were collected in two separate research projects which occurred over a span of 20 months in three phases for the SPS from January 2009 to April 2010; then a single phase from December 2013 to May 2014 for the Kosovo HPD. The original plan set out two phases of data collection; one for each organisation. However, as Parkhe (1993: 240) noted, '*researchers must embrace, not shun, messy empirical reality*'. In the case of the SPS, the findings of the first phase required the disentanglement and understanding of substantive findings on the causes of organisational challenges. The characteristics of the SPS delivery system were shaped over time by multiple goals and put in place in perpetually changing conditions unique to that organisation.

To better understand these problems, further research was conducted in multiple phases, diving deeper and looking closer at the emerging phenomena. Through these phases, the researcher was able to narrow the investigation to refine the list of important and relevant factors for the first case. These focal concepts, distilled from the body of evidence from the SPS, were then taken to the second case for further investigation in a single phase of data collection in the HPD.

The following sections will describe the different data sources which informed the research; as well as the tools and techniques used in the collection and preparation of the data.

5.5.1 Data sources and triangulation

Primary data for both cases in this study were collected through semi-structured interviews and a set of field notes taken during the time spent during the data collection exercises. The data were supported by the organisations' archived data, reports, records, presentations. The use of the various sets of data is one of the strengths of case based research, in that the various perspectives provided by the data assist in corroborating findings. The use of triangulation to add further support to case findings from multiple sources increases the reliability of empirical research (Barratt *et al.*, 2011; Yin, 2013). Reliability is

increased as the constructs which emerge from the case from the various sources converge to a similar result (Barratt *et al.*, 2011; Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Additionally, the use of multiple perspectives is valuable when potentially missing information from one source can be supplied by other sources. Most importantly, the use of multiple interview sources provides balance which may come from bias in any single source, which provides more richness in the data for the collection of individual cases.

Case-based research relies heavily on interviews, on-site observations, and the review of archival records (Barratt *et al.*, 2011; Eisenhardt, 1989; Voss, 2009). As mentioned above, this study used a similarly wide set of sources. For both cases, semi-structured interviews acted as the primary source of information and these were conducted with the relevant knowledgeable actors from the organisation.

In the case of the SPS, staff members responsible for the day-to-day work of each focal activity were required to attend each session. Managers were requested to attend and participate in the second session where process models were validated for accuracy. This was to obtain verification of accuracy from the supervisory level, in addition to that of the engaged worker. These interviews informed the exploratory first case from which the important characteristics and emergent constructs were identified. This required a larger number of interviews and perspectives to confirm the characteristics and the existence of the constructs.

In the case of the Kosovo HPD where the organisation had ceased operation, a series of in-depth semi-structured interviews were conducted with the organisational representative responsible for the operation of the delivery system. This extended interview focused on gaining a complete description of the design of the delivery system and the related characteristics. Emphasis was placed on the constructs which had emerged from the first case, in order to compare and contrast the two organisations' operational systems.

5.5.2 Preparation and conduct of data collection

Interviews were conducted over a minimum of two separate sessions in order to increase the focus of the subjects during data collection (Bryman & Bell, 2015). Greater focus from the subjects can help promote higher levels of accuracy and detail in the data collected. All interviews followed interview guides on the main topics, but allowed for ad hoc exploration and further probing when especially relevant topics were raised (Rubin & Rubin, 2011; Bryman & Bell, 2015). The subject(s) were notified that the goal of the sessions was to produce an accurate representative process model of that section of the delivery system for which the interview subject(s) held responsibility.

Interview guides were developed with consideration to the conceptual model and the research question. This consideration kept the focus of the inquiry on the delivery system design characteristics. Open questions were asked in order to avoid leading the subjects toward specific answers. (See Appendix C – Interview Guide). Developing the interview guide began by drawing on those topics which addressed the research question. Open questions were then drafted which would interrogate those topics. Several versions of questions were developed to overcome any potential confusion, misunderstanding, or unknown terminology/jargon.

During the interviews, notes were taken to capture observations, initial impressions, and add detail to descriptions. These notes aided in reflection after the interviews to increase accuracy in the production of draft representative models. Note-taking also enhanced the transition from data collection to early data analysis. This allowed the researchers to gain a richer and deeper understanding after each interview session to help identify emergent themes for theory-building.

Interviews focusing on the SPS were conducted with 26 separate teams of staff members. In the case of the Kosovo HPD data was collected in a series of interviews conducted in nine sessions. In both cases, the interviews interrogated the design of the delivery system, spanning from the point of first contact with the claimant to the point when the claim was considered closed.

In both cases, during the first session focusing on a specific part of the process, the focal part of the claim treatment process was explored and investigated through a semi-structured interview with the subject(s). The interviews were designed to elicit information for multiple purposes: to identify the potential flows of a claim through the process or activity; to illustrate the characteristics of the delivery system within the context of the case. The protocol for the interviews is available in Appendix C.

In the second session, the same interview subject(s) were asked to verify the accuracy of the representative models to ensure they reflected the intent of the subject, thus reflecting their intimate knowledge of their process. Conducting the interviews over multiple sessions provided two benefits. First, the time between sessions provided the researcher adequate time to analyse the data and query it for insights which influence understanding. Second, the additional meeting ensured that the models created by the research were accurate and assisted in eliminating potential researcher bias. In those cases where the interview lasted longer than the planned first session, additional interview sessions were scheduled to complete the data collection; or in those instances where the models required an additional session to ensure accuracy.

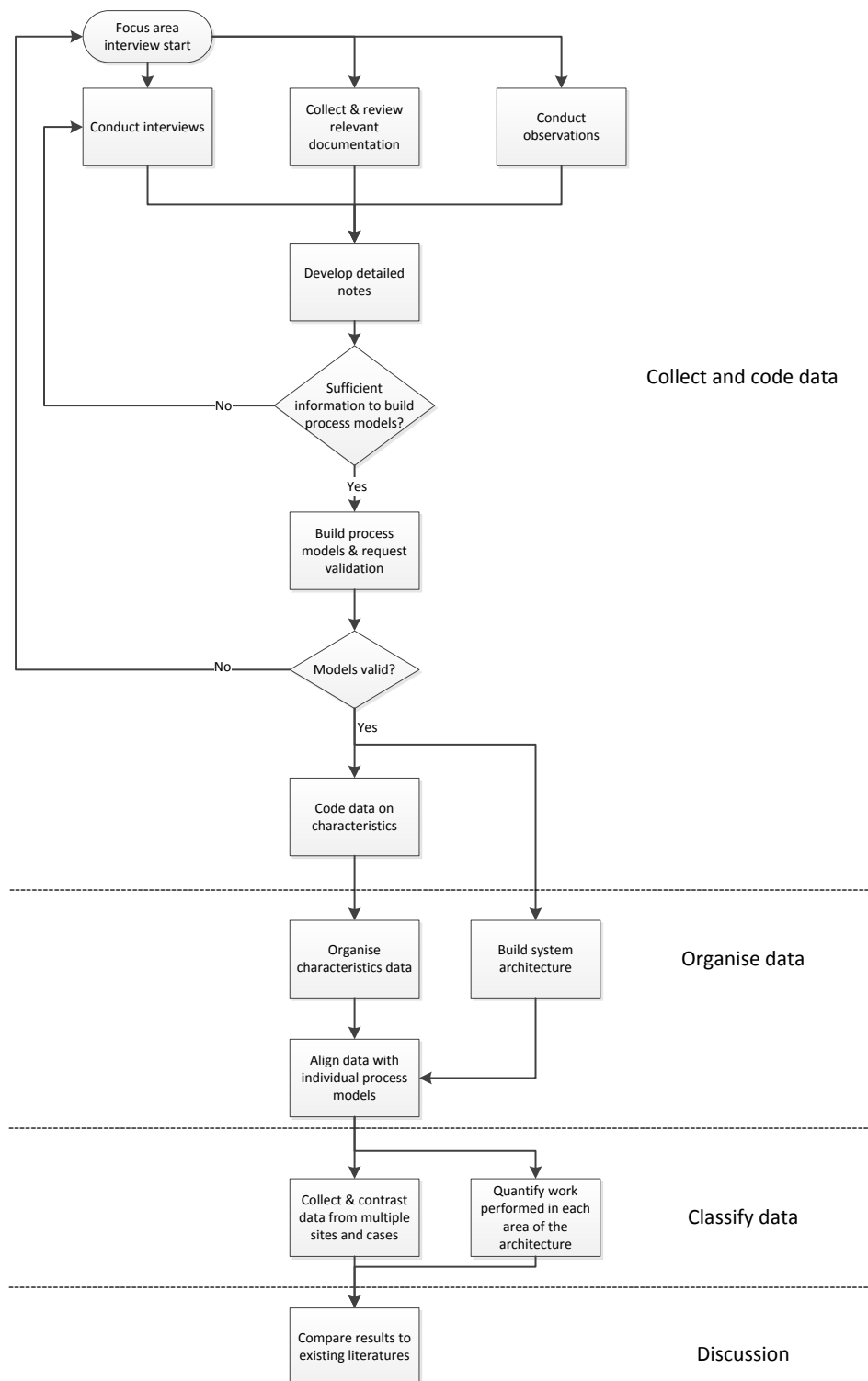
A final check for accuracy in the model creation was also put in place. Once the entire set of models was produced and merged to form a high-level delivery system model, the project owner from the organisation reviewed the results. In the case of the Kosovo HPD, this was done by the 'Head of Legal' who held responsibility for the overall delivery system. In the case of SPS, this was done by a team of high-level managers from the organisation. This team consisted of the Chief Operating Officer, the Chief Technology Officer, the Programmes and Projects Director, the Head of Design, and the Performance Director. The final set of models was fully approved as accurate in both cases prior to use in this research.

Once the models were created and validated, the collected data was reviewed and information regarding design characteristics was coded. The codes were drawn from interview notes, process models, and the related documents

collected from the organisation. As described earlier, coding helps in sense making through the reduction of case study data (Eisenhardt, 1989).

A flowchart of the method for this phase of the research is presented in the 'Collect and code data' section shown below in Figure 5.1.

Figure 5.1 – Research Process Diagram



The interview participants from both cases were made aware of the aim of the interview when scheduling the first session. The aim was stated as: to have them describe the structure and characteristics of the area of the delivery system relevant to them. This was reinforced at the outset of the first session as a reminder. Participants were not informed of the outcomes or results of any of the other sessions or cases in which they did not take part. This was done in order to limit any potential bias, and prevent any preconceived notions or opinions from influencing their responses. The researchers stated that extensive notes would be taken, and that the models created from the sessions would be presented to them for validation in the next session. Subjects were given an opportunity to voice objections at any time. Confidentiality was offered in case the subjects felt any pressures which limited their free expression in front of other team members or managers. No objections to the procedure were received in either of the cases.

5.6 Data analysis procedure

Earlier in this chapter, it was established that this thesis adopts a theory-building, multiple-case research approach. There is wide support from the literature that theory-building case research can produce conceptual frameworks, theoretical constructs, propositions, suggestive models, or even mid-range theory (Barratt *et al.*, 2011; Edmondson & McManus, 2007; Eisenhardt, 1989). However, Eisenhardt & Graebner (2007) further state that case research stops short of developing 'grand theory' about organisation in general; instead focusing on developing theory about specific phenomena. This thesis aims to develop theoretical constructs about the design of delivery systems in information-centric Mass Claims Processes.

5.6.1 Application of the Conceptual Framework

The development of theory through case-based research cannot begin without the foundational underpinnings of existing theory. The general constructs and objects of study are required as a starting point from which to build (Voss *et al.*, 2002). Ketokivi & Choi (2014) posit that clear articulation and transparency of

the research theoretical contributions must start from an explanation of extant theory. This provides the contribution a clear link to existing theory. As such, research should use a priori constructs and categories to shape the initial design of the study (McCutcheon & Meredith, 1993; Voss *et al.*, 2002).

Miles & Huberman (1994) similarly recommend the use of a research framework for theory-building to create categories, or what they term 'intellectual bins', which appear to be important and relevant to the inquiry. According to the authors, the framework can be either in narrative form or in a visual depiction. Such frameworks can draw widely from various literatures (Edmondson & McManus, 2007), providing benefit to the researcher through the provision of a narrow set of topics for the inquiry. By drawing relevant constructs from literature, additional accuracy in the investigation can be achieved (Barratt *et al.*, 2011; Eisenhardt, 1989; Voss *et al.*, 2002). Should the research produce results which align with the constructs derived from the literature, then the results have greater potential to integrate with that literature (Eisenhardt, 1989).

The use of a set of a priori constructs at the initial stages of the research also comes with warnings to the researcher to be aware of the potential for emergent relationships and constructs. Pre-existing theoretical considerations are helpful for theory-building research, but may lead to the researcher finding what they want to find (Ketokivi & Choi, 2014). As such, we are warned that theoretical assumptions should be kept to a minimum to truly build theory, as opposed to testing theory which requires rigorous development of theory (McCutcheon & Meredith, 1993). Eisenhardt (1989) pushes case researchers to approach the 'clean slate' in order to avoid the danger of "*preordained theoretical perspectives or propositions ... (which may) bias and limit the findings.*" (p.536)

Following this approach, this thesis applies a set of relevant a priori constructs to assist with focus during the data collection and analysis. The conceptual framework presented in the previous chapter describes such constructs as Target Market, Service Concept, and Delivery System; along with the characteristics which describe delivery systems which are likely to have importance for the study of delivery system design in Mass Claims Processes.

The conceptual framework does not propose any specific relationships between the characteristics and the delivery system, nor does it present any speculation about any ultimate relevance between the characteristics and the delivery system. It intends to provide a useful structure from which observations can emerge during analysis.

The framework also should not be considered a limiting boundary for findings either. Data collection may extend observations beyond the characteristics and relationships described by the framework when the opportunity for additional insight was discovered. The framework helps ground findings back in the original sources from the literature, providing clarity and transparency in the chain of evidence.

5.6.2 Duality criterion

Empirical research which is both in-depth and closely engaged with its subject has the potential to produce theory which more accurately reflects reality (Eisenhardt, 1989). However, Barratt *et al.* (2011) argue that abstraction of results is desirable in order to transcend the narrow focus provided by in-depth, closely-engaged observations. Ketokivi & Choi (2014) propose the 'duality criterion' as a condition for scientific rigour in case-based research. The duality criterion proposes that theoretical constructs emerging from such research are situationally grounded by highly specific, highly contextual empirical evidence; and at the same time the research should seek a 'sense of generalisability' (Ketokivi & Choi, 2014: 234). These emergent theoretical constructs should be able to clearly support more general and abstract theoretical implications. To meet the duality criterion, this research draws from highly specific empirical data to inform observations on characteristics of delivery system design. These characteristics, drawn from the relevant OM literature, provide a higher level of abstraction. The next step of generalisability is provided by abstracting to a higher contextual level, which is provided by delivery system classification schemes which transcend industry. By drawing from highly specific empirical data and moving through ever-increasing levels of abstraction, theoretical implications in this research have the duality of clear grounding in concrete, empirical evidence while similarly providing desirable levels of generalisability.

Emergent theory generated by this research is achieved through cross-case analysis and in comparing results with previous studies and existing theory (Miles & Huberman, 1994; Eisenhardt & Graebner, 2007; Ketokivi & Choi, 2014).

5.6.3 Analysis process

The analysis conducted in this study is informed primarily by the works of Miles & Hubermann (1994) and Eisenhardt (1989). Miles & Hubermann (1994) describe the creation of meaning through the analytical process which begins with empirical, concrete evidence and moves to a more abstract level of understanding. Eisenhardt (1989) illustrates an approach to building theory from case research using within-case and cross-case analysis. The tools used to facilitate this research were iGrafx (IDEF₀ process modelling software) and multiple Microsoft Office applications (Visio, PowerPoint, Word).

5.6.3.1 Within-case analysis

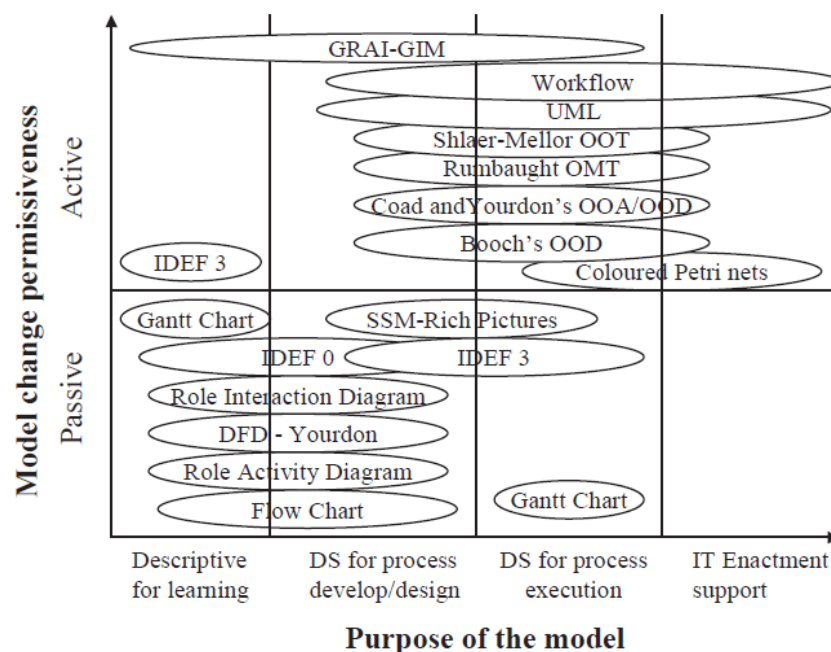
During the initial stages of data analysis, it is useful to examine individual instances of data collection in order to begin organising and categorising the data. This is within-case analysis, as described by Eisenhardt (1989), and it involves review of the detailed narratives and models produced. Focus is placed on understanding each unit analysed in order to become “*intimately familiar with each case as a stand-alone entity*” (Eisenhardt, 1989: 540). Gaining this level of familiarity assists the researcher in the next phase of cross-case analysis. No standardised output style or format is associated with this approach. For this research, each case was analysed and summarised in the production of process models.

5.6.3.2 IDEF₀ – technique for mapping/modelling delivery systems

Aguilar- Savén (2004) proposes an analytical framework which categorises modelling approaches based on two characteristics: purpose of the model and model change permissiveness. The characteristics which describe the two axes of the framework (shown below in Figure 5.2) are further decomposed into subcategories into which the various modelling approaches can be placed. The vertical axis describes ‘Model Change Permissiveness’: whether the model

allows and facilitates changes in its composition. Those that change or that are designed to be manipulated during normal use are 'Active' models; while those that do not have the capability to interact or change are 'Passive' (Aguilar-Savén, 2004: 146). The horizontal axis describes the intent behind the model's creation. This separates those models that intend to describe processes from those that enable process execution. IDEF₀ (Icam DEfinition for Function Modelling; where 'ICAM' is an acronym for Integrated Computer Aided Manufacturing) is described by this classification as a passive modelling system that is intended for descriptive learning or for support for design decisions.

Figure 5.2 – Applicability of Process Modelling Techniques, from Aguilar-Savén (2004)



The advantage of IDEF₀ over other modelling approaches in this classification is that it combines several different views. Role interaction and role activity diagrams show how workers and responsibilities interact to create rules of governance or hierarchy within social or IT systems. Flow charts present an illustration of the path taken by materials/customers/information through activities and/or processes, including which decisions and choices are required. Data flow diagrams exhibit the movement of data through IT systems. IDEF₀ combines many of these views focusing on flow through activities, but also incorporating the mechanisms (either people or tool-based) which perform the action, and the controls which govern how and why an action is performed (AMICE, 1989; Aguilar-Savén, 2004; Biazzo, 2000).

More generally, IDEF₀ belongs to a suite of other methods and techniques within a larger IDEF portfolio, which range from IDEF₀ to IDEF₁₃. IDEF is the abbreviation of 'Integrated Computer-Aided Manufacturing (ICAM) Definition Method' and the subscript number refers to the individual technique within the portfolio. IDEF₀ is the most popular of the IDEF techniques (Aguilar-Savén, 2004). IDEF₀ traces its origins to the United States Department of Defence where it was first used to design and analyse complex manufacturing systems (Wu, 1994). However, its use across multiple industries is well-supported by research (Congram & Epelman, 1995; Gingele *et al.*, 2002; Smart *et al.*, 1999a; Wu, 1994; Fölscher & Powell, 1999). Based on this evidence and considering the aim of the research, the use of IDEF₀ to model processes such as those in this thesis is appropriate and justified.

5.6.3.3 Cross-case analysis

Once a case process was modelled, cross-case analysis has been shown to be an effective tool for better understanding the data. Cross-case analysis has the benefit of overcoming potential limitations in the accuracy of the observations which emerge from the individual cases. Cross-case analysis activities can be found in the 'Classify data' section of Figure 5.1 – Research Process Diagram, above.

In this research, two separate organisations were studied. However, in the SPS, the primary claim treatment process existed in five separate sites; select other activities within the delivery system were similarly duplicated on multiple sites (see the case description at the beginning of chapter 6 for more information.) In the perspective of this research, the multiple instances of the same delivery system were considered to be separate cases within the single organisation. Eisenhardt (1989) posits that the use of cross-case analysis facilitates the creation of stronger reasoning, and reduces the risk of premature or false conclusions.

Further support comes from Balasubramanian & Gupta (2005) in the value of analysis provided by cross-case comparison of the characteristics and capabilities of multiple sets of models. The points of comparison for such analysis can be "*structural variables like number of activities, number of parallel*

activities, number of automated activities, number of visible process states, number of activities requiring special inputs, and so on" (Balasubramanian & Gupta, 2005: 683). Thus, multiple processes with similar goals and relatively similar structures may be compared for the purposes of understanding the how the variation between the two may affect performance against stated goals.

However, the use of a particular mapping or modelling technique or method must align with the intended goal of the exercise (Kettinger *et al.*, 1997). As discussed above, this thesis aims to study delivery systems and their related characteristics which enable the system to meet organisational goals.

Considering this approach, Kettinger *et al* (1997) specifically emphasise the relevance of IDEF₀ for process capture and process design and/or re-design. Aguilar-Savén (2004) highlight the ability of IDEF₀ to develop structural graphic representations of processes and/or complex systems as enterprises. This enterprise-level view is illustrated by the representation of the interrelation of the individual elements which comprise the process, which IDEF₀ is capable of presenting (Kettinger *et al.*, 1997); and some have provided support for the use of IDEF₀ for modelling delivery systems for strategic analysis (Smart *et al.*, 1999b).

5.7 Research reliability & validity

This section describes the measures of ensuring quality and rigour in the research activities undertaken. Due to the unique context presented by case-based research, the measure of quality in case-based research lies in the validity and reliability of the research design (McCutcheon & Meredith, 1993). Generally, the case research should strive towards high levels of confirmability, transferability, credibility, and dependability (Riege, 2003). The judgement of quality in these dimensions can be determined through observations on reliability, construct validity, external validity, and internal validity (Eisenhardt, 1989; McCutcheon & Meredith, 1993; Miles & Huberman, 1994; Stuart *et al.*, 2002; Voss *et al.*, 2002). The following sections discuss the approach taken in this thesis to address these quality measures.

5.7.1 Chain of evidence – Research reliability

Reliability describes the ability for the research approach to be repeated and achieve the same results (Easterby-Smith *et al.*, 2002; Karlsson, 2009). Miles & Hubermann (1994) describe reliability as the consistency in the application of the research process. To improve reliability, this study utilises the principles of the chain of evidence, which includes case interview protocols and standardised modelling techniques. This allowed all past data from the case to be accessible to the researcher at any point during the undertaking, ensuring that methodological consistency was maintained by the researcher (Voss *et al.*, 2002).

In order to improve the reliability of the information emerging from a case study, Yin (2013) states that a clear chain of evidence should be present within the structure of the research. The literature should inform research questions; research questions should inform case data collection protocols; data collected should support conclusions. In this manner, all stages of the research can be clearly conceptually connected by the chain of evidence. By following the chain of evidence, the reader of the study can follow the logical derivation of evidence from research questions to case study conclusions and back again (Yin, 2013).

For this research, the chain of evidence began with the statement of the research question. The chain continued with the review of the relevant literatures, followed by the development and presentation of the conceptual framework. The conceptual framework was shown to be based on the findings of the literature reviews. The conceptual framework provided a basis for the selection of the case study method. The findings of the case studies are evidence for a set of conclusions about the research question: the delivery system design in the context of information-centric Mass Claims Processes. Here, the chain of evidence can be reversed to come full-circle, showing how the set of conclusions presented in chapter 11 address the original research question. The transparency created through the detailed chain of evidence promotes greater reliability in the findings of this research.

5.7.2 Construct validity

Construct validity refers to the concept of whether or not the research instrument actually measures the concept the researcher intends to measure (Karlsson, 2009; Bryman & Bell, 2015). McCutcheon & Meredith (1993) describe construct validity as an alignment between the theoretical territory and the construct used to examine that territory. In order to strengthen construct validity, this research utilises a conceptual framework which contains *a priori* constructs and characteristics from the two relevant literatures. The use of the previously defined and similarly utilised constructs and characteristics provides theoretical grounding to the two literatures. As discussed above, these constructs and characteristics guide data collection and the subsequent analysis, thus providing a link from findings back to the relevant theory in the literatures.

5.7.3 External validity

External validity refers to the concept of whether the findings drawn from studying any single subject are applicable to other subjects or settings (Karlsson, 2009; McCutcheon & Meredith, 1993; Bryman & Bell, 2015). The fundamental question for external validity is whether or not the findings can be generalised. Case-based research is steeped in empirical evidence, which is one of its generally-held strengths. However, Ketokivi & Choi (2014) caution that such rich evidence may similarly impede the generalisation of the results outside the single case. Pratt (2008) suggests a response to this may be the application analytical generalisability, whereby data is generalised toward theory and not toward a sample set. In this way, the researcher endeavours to locate constructs emerging from the data at a higher level of abstraction (Eisenhardt & Graebner, 2007; Yin, 2013).

5.7.4 Internal validity

Internal validity is the measure of whether the findings generated by the research actually exist. Higher levels of internal validity reaffirm the existence of the causal relationships between constructs which emerged from the research. Stuart *et al.* (2002: 430) describe high levels of internal validity as

where “*certain conditions lead to other conditions as distinguished from spurious relationships.*” To increase the levels of internal validity for this research, cross-case analysis was used to confirm findings within the first case organisation. This was combined with cross-case analysis from the findings from the second organisation, whereby the constructs and causal relationships found within the first organisation were compared and contrasted to those in second. When the various cases confirmed the same constructs and relationships, internal validity was enhanced.

Internal validity was further enhanced by moving from the description of emergent results to the further understanding and illustration of the underlying causal relationship. In this way, the research not only identifies and confirms the focal characteristics and their relationships; but it also examines and confirms the causal relationships across multiple cases. This provides additional depth to the internal validity of the research (Eisenhardt, 1989). The extensive use of illustration of the delivery system and related emergent findings through the use of visual representations (process models) is supported as a technique for increasing internal validity (McCutcheon & Meredith, 1993; Miles & Huberman, 1994). The illustrations increase the validity of the findings through visually representing the underlying logic of the causal relationships, and provide a foundation for comparison across cases and organisations.

Lastly, this research aimed to increase internal validity through member checking, as recommended by Miles & Hubermann (1994). In this technique, the key informants of each data collection session reviewed the delivery system models and confirmed that the understanding gained by the researcher was valid.

Table 5.2 presents a summary position of the relevant quality measures for case-study research as addressed in this thesis.

Table 5.2 – Summary of quality measures for case-study research

Quality measure for Case Study	Actions taken	Phase(s) of research where the tactic is applied
Reliability	<ul style="list-style-type: none"> • Use of case study protocol 	Research design
	<ul style="list-style-type: none"> • Use of the chain of evidence 	Alignment must be ensured in each stage of research
Construct validity	<ul style="list-style-type: none"> • Theoretical grounding 	Research design (drawing on literature)
	<ul style="list-style-type: none"> • Clear definitions of constructs 	Research design (drawing on literature)
	<ul style="list-style-type: none"> • Establish chain of evidence 	Research design Data collection
	<ul style="list-style-type: none"> • Use of multiple sources 	Data collection
	<ul style="list-style-type: none"> • Have participants review and approve representative models 	Data collection
Internal validity	<ul style="list-style-type: none"> • Use of cross-case analysis 	Research design Data analysis
	<ul style="list-style-type: none"> • Use of standardised modelling technique 	Data collection
	<ul style="list-style-type: none"> • Member checking 	Data collection
External validity	<ul style="list-style-type: none"> • Increase abstraction of application of data to constructs 	Data analysis
	<ul style="list-style-type: none"> • Use of the 'Duality Criterion' 	Research design Data analysis
	<ul style="list-style-type: none"> • Use of cross-case analysis 	Research design Data analysis

This chapter illustrates the philosophical foundations supporting the methodological choice required to appropriately address the research question. Using a critical realist approach, case-based research is used to investigate and

understand the characteristics and constructs associated with delivery systems in Mass Claims Processes. Multiple cases are investigated as part of a polar case approach, which provides additional benefit in comparing and contrasting resulting observations. The two cases are the Single Payment Scheme and the Kosovo Housing and Property Directorate. The former provides assistance through the distribution of government sponsored financial subsidies to land owners; the latter provides restitution in the form of restoration of property occupancy rights to those displaced by war and civil unrest.

The characteristics of the delivery systems are examined through the creation of representative models, built through a series of interviews with workers from each organisation. The empirical data from the two polar cases are compared and contrasted in order to present a set of conclusions. These conclusions aim to build testable theory for use by practitioners and researchers, relevant to the context of design of delivery systems for information-centric mass claims processes.

6 SPS Case – Phase One: Single Payments Scheme

This chapter presents Phase 1 of the first case study of a mass claims process; the Single Payment Scheme (SPS). The case study was conducted to address the research question: “*what are the delivery system design characteristics for information-intensive mass claims processes?*”

In this chapter, an overview of the organisation is given which describes the creation of the organisation, its mandate, and the rules by which it is governed. The organisation will be located within the relevant classification schemes as described in the Delivery System Design literature.

Section 6.2 presents observations on the structure of the delivery system. This section will include a description of the focal unit of analysis. The functional units which comprise the delivery system will be described, as will the customer–provided inputs to the delivery system.

Section 6.3 presents a reminder of the method employed in this phase of the research; followed by the representative model of the SPS delivery system. Observations on the various characteristics of the delivery system are presented in Section 6.4.

Conclusions drawn from the observations from the research appear in Section 6.5. These conclusions are followed by a summary of the chapter and the implications for the next phase of research. The story of the SPS research unfolds through three phases, presented in three chapters. At the end of the three chapters, a discussion section will be presented which draws together the relevant information from the entirety of the first case.

6.1 Overview of the Organisation

The subject of the research in the first case was the Single Payment Scheme (SPS) administered by the Rural Payments Agency (RPA). The RPA is part of the Department for the Environment, Food, and Rural Affairs (DEFRA) in the government of the United Kingdom. For clarity, the SPS is both the programme of work and the name of the delivery system which manages the scheme. The

naming convention was the creation of the organisation and was adopted by the researcher.

The task of the organisation is the distribution of over £1.65 billion in land-based subsidies for crops and livestock offered by the European Union (EU) but distributed through the government of the United Kingdom. The scheme received approximately 106,000 claims annually, operating on an 18-month cycle (RPA, 2009).

Along with the payment process, the RPA was also responsible for delivery of several other services on behalf of the government. The organisation also managed cattle tracing services, land preservation & environmental stewardship, and paid approximately 40 different subsidies each year. These separate activities are provided here as further illustration of the organisation, but are not a part of the focus of this research.

6.1.1 The mandate

The mandate for the organisation was established in 2003 by legislation passed by the European Community (EC) in 'Council Regulation (EC) 1782/2003'. The mandate, outlined by *title I - article I* of that document, establishes the delivery of financial aid from the EC to farmers producing a defined set of crops. The mandate also describes the use of a common set of rules, which are outlined in the same regulation document (EC, 2003).

6.1.2 The rules governing the process

The rules governing the process are described in the same regulation as the mandate. This is a variation from the progression of organisational creation described in the Mass Claims Process literature, whereby a separation was observed between the creation of the mandate and the creation of the rules. The rules guiding the SPS provide substantial detail on how valuations were to be calculated, which the delivery system must strictly follow (see section 6.4.1 below).

Importantly, the rules clearly described what supporting evidence was required from the claimants. The claim form, populated with claimant-provided evidence,

was the primary input required to render an output back to the claimant. These inputs are discussed in section 6.2.3 below.

6.2 Structure of the delivery system

In this section, the SPS delivery system will be described in several ways. First, the delivery system in the case will be described as the unit of analysis. This discussion draws on the discussion from methodology chapter, specifically the focus on using open systems theory and the *manage/operate/support* framework (AMICE, 1989; Katz & Kahn, 1966). Then the structure of the delivery system across the organisation's six locations will be illustrated.

6.2.1 Unit of analysis

In chapters 3 & 4, the unit of analysis of this research was described as those processes within the MCP which act to satisfy the needs of the claimant; the 'Operate' processes from Open Systems Architecture (OSA) (AMICE, 1989; Smart *et al.*, 1999b) creating outputs for the customer. As such, the focus will rest on the activities starting with the claimant's input which initiates claim treatment activity, and end when an output is rendered to the claimant.

During data collection, the influence of the 'manage' and 'support' from OSA on the delivery system was noted, but the processes themselves (such as strategy setting, finance, HR, facilities, etc.) are not explored as part of this research. There were instances where information was observed flowing between different 'operate' processes within the larger organisation, but outside the boundary of the SPS. However, those other 'operate' processes are not the focus of this research. Where applicable, the flows between the different processes are noted.

6.2.2 Functional units within the organisation

The activities which comprise the operate processes of the delivery system were distributed across the UK in six regional sites: Reading, Exeter, Workington, Northallerton, Carlisle, and Newcastle. The location of facilities will be discussed in Section 6.4.6.1, which presents the discussion of the location of the delivery system as one of the relevant characteristics for MCPs.

The activities carried out on each site are described in Table 6.1, below.

Table 6.1 - Activities performed during claims processing

Activity	Activity Description
Whole Case Work	This was considered to be the 'normal' claims processing activity once the claim was entered into the computerised claim processing system. This included verifying and correcting claim-related data, contacting the claimant for clarification in the case of a discrepancy; answering claimant questions; confirming and approving valuation for payment. For those claims which required specialist work (as detailed below), the claim would be sent to the relevant department for the specialised processing, but would be returned to a generalist whole case worker.
Entitlement Correction (EC)	Adjustments to land data going back to the scheme's start date would result in an adjustment to the entitlement linked to that land. This activity corrected the details of the related entitlement. Due to the tradability and divisibility of entitlements, this activity often had to be traced through several claimants and the land in their claim. (For more detail on entitlements, please see section 6.2.3, below.)
Entitlement Transfers (ET)	This activity registered the change in ownership of entitlements with the SPS. The transferred entitlements were then added to a claimant's account records for use in claims; while previous owners had entitlement rights removed from their accounts.
Overpayments (OP)	This activity investigated overpaid claims to determine the nature of the calculation error and produce an accurate valuation amount.
Cross Compliance (XC)	This activity reviewed the use and maintenance of the claimed land to ensure it met the scheme's required levels of environmental and aesthetic compliance, and to ensure an environment of good animal welfare and health. Claimants were required to keep land in 'Good Agricultural and Environmental Condition' (GAEC). This activity of ensuring cross compliance used data produced by the physical inspection.
Physical Inspection (PI)	This activity involved an employee of the organisation inspecting the claimed land in person. This involved surveys of land dimensions, the presence of buildings or other features which would alter claim valuation, and cross compliance parameters.
Remote Sensing (RS)	This activity intended to achieve some of the same goals as Physical Inspection, but analysed claimed land from satellite imagery.

Activity	Activity Description
Commons	This activity processed claims on common land, which required a different method of valuation. Common lands were eligible for claims, but the use of the land was carefully measured and divided among other eligible claimants. This activity was responsible for translating antiquated valuations or rights descriptions into modern equivalents. The land registers/cadastrals were not held by the organisation, but were instead held by local authorities and needed to be purchased or requested for this claims process. The various considerations produced a valuation for the claim for the common land claimed.
Data Management (DMU)	This activity received, scanned, and filed correspondence from the claimant. This included the completed claim form. There was also a quality assurance check performed in this activity, ensuring that the claim was completely filled out and signed by the claimant.
Customer Registration (CREG)	New claimants had to first register with the organisation before any claim could be filed. This activity was responsible for managing requests for registration of new claimants. New claimants were given a unique identifying number (Strategic Business Identifier - SBI) for use on all future correspondence. This activity also managed changes of claimant-related data on the IT system, such as changes of address/contact information and changes in the ownership of the business (due to sale, death of the owner, etc.) As a result, this activity had to manage probate, one of the more problematic areas; which caused significant delays in completing claims on time.
Cross Border	A set of claims involved land which straddled the national borders shared by England, Scotland, and Wales. This activity processed those claims which required agreement/alignment with the separate processes in those countries.
Special Management Unit (SMU)	The SMU is responsible for the management of the entire SPS. It was tasked with resolving problems which could not be solved locally. The SMU would then communicate the known issue and resolution across the organisation to ensure consistency in the treatment.
Rural Land Register (RLR)	This title describes both the activity and the register of land. This activity updated the set of maps used to confirm the size, location, parcel name, ownership, use, and other characteristics of land. It was updated with data from inspections, and information submitted by claimants.

Activity	Activity Description
Finance	This activity maintained the financial balance of the claimant account. It processed payments into claimant accounts after valuation from claim processing. It also produced statements of overpayments/debt and received repayments from claimants.
Policy Special Management Unit	This unit and activity was responsible for dealing with policy matters, including liaising with DEFRA and the European Commission, and interpreting that communication into meaningful points of action for the scheme.
Customer Services Centre (CSC)	This was the call centre which managed incoming phone calls from claimants. This activity did not manage/adjust data which would affect claim valuation. It could only report on the status of a claim. More technical questions or requests would be passed to a whole case worker.

As previously mentioned, these activities were performed across six sites. Only three activities (whole case work, entitlement correction, and overpayments) were performed at all six sites, the others were distributed between the sites.

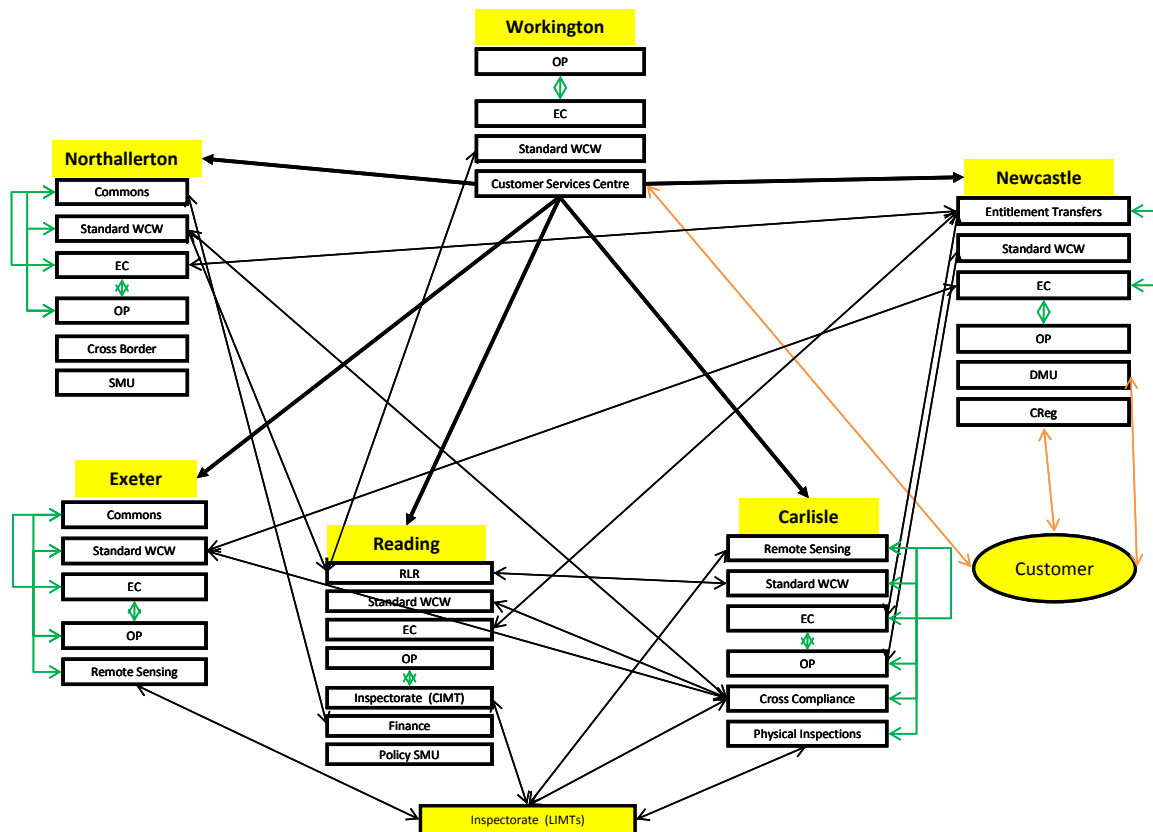
Table 6.2, on the page following, displays the worksite in which each activity was performed.

Table 6.2 - SPS activity by worksite

Activity	Carlisle	Exeter	Newcastle	Northallerton	Reading	Workington
Whole Case Work	X	X	X	X	X	X
Entitlement Correction	X	X	X	X	X	X
Entitlement Transfers			X			
Overpayments	X	X	X	X	X	X
Cross Compliance	X					
Physical Inspection	X				X	
Remote Sensing	X	X				
Commons		X		X		
Data Management Unit			X			
Customer Registration		X				
Cross Border				X		
Special Mgmt Unit				X		
Rural Land Register		X			X	
Inspectorate					X	
Finance					X	
Policy SMU					X	
Cust. Services Centre						X

After each of the above processes were modelled, it was then possible to create a physical representation of the flow of work between the various sites and activities within the delivery system. The information collected to populate this model was drawn from research interviews, and is represented in list form in Appendix B. These links between activities in the six sites are shown in Figure 6.1 below.

Figure 6.1 - Links between activities by site



This model reveals a number of connections, or hand-offs through which a claim must pass during normal processing. The direction of the hand-off is noted by the arrows connecting the activities. For those cases requiring specialist processing, the number of hand-offs increases, also increasing the likelihood that the claim will make several circuits of the activities and sites before completion.

Once the claim has been submitted and is in processing, all claimant-initiated contact with the organisation is channelled through the Newcastle and Workington sites. It is possible that the organisation could contact the claimant and ask them to come into one of the sites for further consultation. However, the claimant is not permitted to simply present themselves without appointment and request a meeting. A direct request from the organisation must be made before a meeting can take place. During the claim submission window of time, special consultation areas were created in each of the sites so that questions could be asked directly to staff members prior to submitting the claim. These

closed after the claim submission deadline passed. The advice given during these 'drop-in' sessions was very general; great care was taken to avoid providing any direction or comment which created a false sense of expectation.

An important observation is that along with whole case work, each site performed entitlement correction and overpayments activities.

The handover from activity to activity was done with little communication between staff members in each area. In most cases, either an email was sent or a notification in the IT system was prompted by the worker who had just finished their task. The email was sent not to an individual, but to a departmental email address where it was added to a work queue. This meant that contextual information had to be typed and attached to the claim. There was rarely any communication between individuals in different departments about the details of any claim.

The above has described the structure of the organisation, but it does not provide detail on the structure through which claims flow during treatment. The detailed models of the activities which comprise the claims treatment process are presented in 6.3.2 below.

6.2.3 Inputs required for the Delivery System

From Article 22 of the rules issued with EC Regulation 1782 (EC, 2003), the claimant needed only to indicate three things when submitting a claim:

- *the parcels of land involved in the claim*
- *the number and amount of payment entitlements*
- *any other information that the member state requires, within the defined rules*

The final point clearly leaves the organisation with the option of adding any other sources of information from the claimant.

Article 22 also allows for the optional use of claim data from prior years. If the organisation so chooses, they may force claimants to fill out a blank claim form each year. Alternatively, the organisation may use the data from the previous

year, pre-populate the claim form with that data, and then send the form to the claimant requesting that any changes to that data are highlighted. The choice to utilise pre-population is left to organisation. *“A Member State may decide that the aid application needs to contain only changes with respect to the aid application submitted the previous year.”* (EC, 2003: Article 22)

In summary, the organisation can, each year, request the entire set of input data from the claimant by sending the claimant a blank form; or request only changes to previously submitted input data each year by sending a pre-populated form. The input data required by rule can be as little as two categories or as many categories as the organisation feels it needs (within the rules.) As described above, claimants must not only provide measurements of the land parcels and the use of that land included in the claim; but they must also possess an equal set of entitlements to support the claim.

In this context, the noun ‘*entitlement*’ can be likened to a certificate which can be bought or sold. During the initial design and creation of the SPS delivery system, the distribution of entitlements was added to the scheme. The reasons for the creation and addition of entitlements are outside the scope of this research. However, the presence of entitlements is a significant addition to the set of inputs required from the claimant. The claimant was required to possess sufficient enough entitlements to match the area of land submitted in the claim. There was a limited set of entitlements which were distributed during the initial claim year solely to successful applicants.

The entitlement is treated like a commodity, and can trade hands with relative ease. Entitlements can also be subdivided into any number of parts which can also be bought and sold. No restrictions were placed on the trading of entitlements. However, in order to be used as part of a claim, entitlements had to be owned by that claimant on a designated day. Ownership had to be registered with the organisation. Entitlements owned by a claimant were required to be used at least every three years. If not used in any three consecutive claim years, the entitlements would be lost to the claimant.

Once this data was assembled, the claimant would use it to populate the claim form and attach any evidence (e.g. land maps and surveys) to support the

claim. It was at this point that the input from the claimant for the most recent claim year would come into contact with the delivery system. Importantly, inputs from the claimant were not subject to any standard quality check prior to their entry into the computerised system.

6.3 Design of the delivery system

The data collected from the six SPS sites across England is presented in this chapter. A recap of the method of data collection is given and further detail is provided on how the characteristics of the delivery system were measured. The conceptual framework presented in chapter 4 detailed the set of characteristics on which this research focuses; observations from the organisation will be discussed below. For ease of reference, the set of characteristics is presented here in Table 6.3.

Table 6.3 - Delivery System Design Characteristics

Degree of Routinisation
Degree of Employee Discretion
Worker Skill Level
Degree of Automation
FO/BO Configuration
Batching Techniques
Postponement

6.3.1 Method

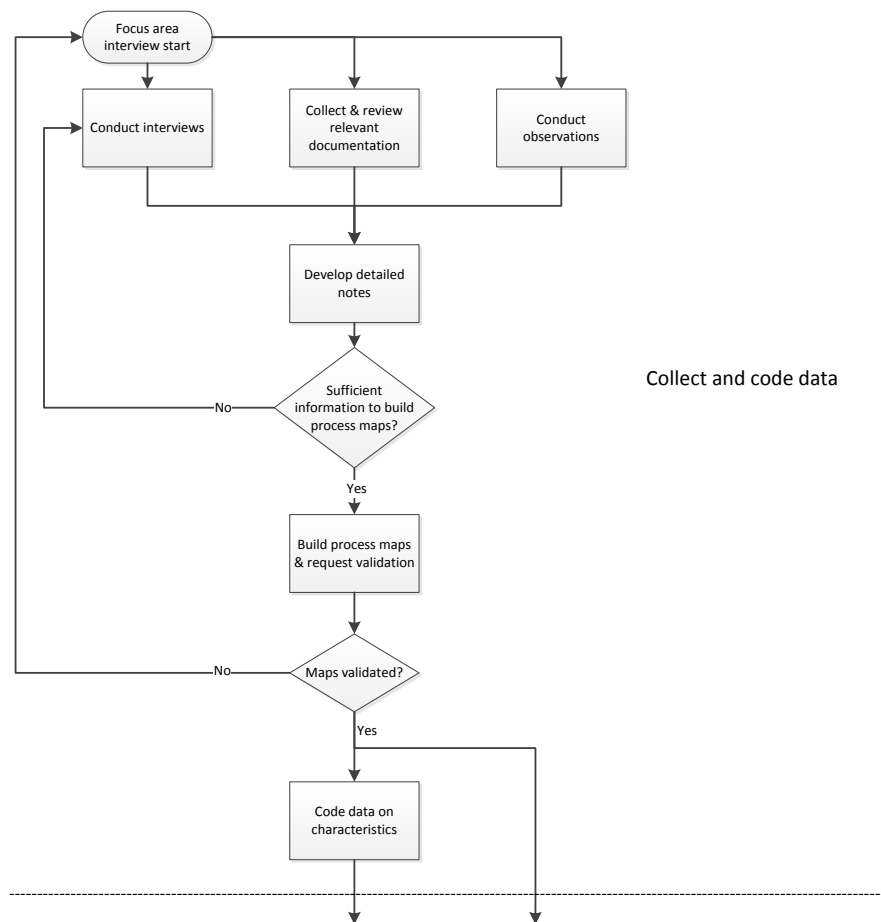
As illustrated in Chapter 5, an understanding of the delivery system was undertaken through the creation and analysis of representative models of the claim treatment process (Biazzo, 2000; Kettinger *et al.*, 1997). To create these models, interviews were conducted using a ‘bottom up’ modelling technique (Davenport, 1995) with 26 separate teams of SPS staff members. The models

illustrate the process from first contact with the claimant to the point when the claim was considered closed.

A flowchart of the method for this phase of the research is presented below in Figure 5.1.

A final check for accuracy in data collection was also put in place. Once the entire set of models was produced and merged to form a representation of the high-level delivery system, the project owner from the organisation reviewed the results with a panel of high-level managers from the organisation. The panel consisted of the Chief Operating Officer, the Chief Technology Officer, the Programmes and Projects Director, the Head of Design, and the Performance Director. The representative high-level model produced by this research was reviewed at the end of the first phase and confirmed as accurate by the panel. The representation of the delivery system which was verified as accurate is presented in section 6.4.

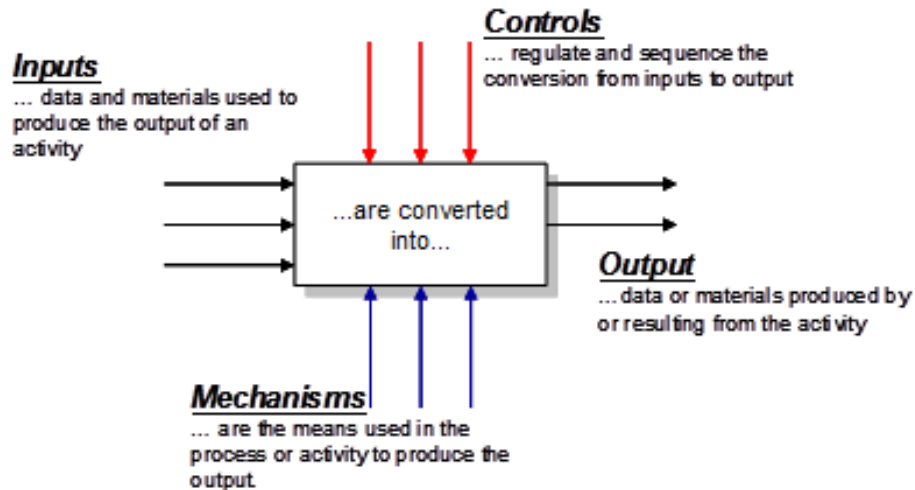
Figure 6.2 – Research method for Phase 1



6.3.2 Representations of the Delivery System

The modelling technique, IDEF₀, was described in detail in the methodology section. The usage, principle features, and the key to symbols used is presented here.

Figure 6.3 – ICOM diagrams used in IDEF₀ Models



The principle features of IDEF₀ are (Congram & Epelman, 1995):

- It uses as its basic syntax, input – activity – output (see figure below). Usefully, IDEF₀ distinguishes between those things being transformed (inputs) and those carrying out the transformation (resources). This latter group are called mechanisms. There is also a final arrow, the control, governing the way the activity takes place.
- It limits the number of diagrams to a page to between 3 & 6 to keep the model comprehensible.
- It enforces a strict hierarchy of models so that inputs and outputs on sub-systems must be shown on higher level models.
- It shows the interconnectedness of the input-output diagrams by labelling arrows as nouns (i.e., things to be transformed).

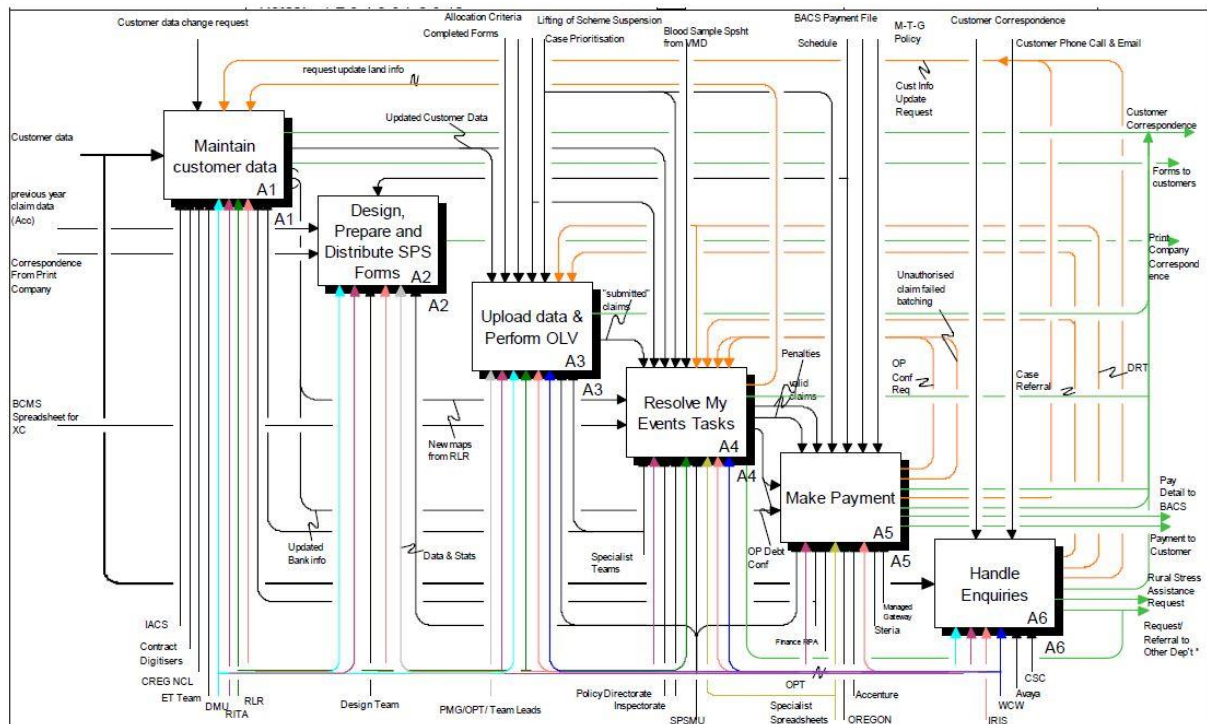
6.4 Standard Claim Processing

To begin, it is helpful to have an understanding of what the RPA considered to be the standard process for treating claims. The final version of the verified and

approved high level delivery system model is presented below as Image 6.1. The models describe the process using the jargon of the employees. A glossary of these terms is provided in Appendix D.

This model presents a summary model of the overall delivery system, compiled from interviews from all six SPS delivery sites. The advantage of this perspective is that it provides a complete picture of the flow of claims through SPS from the customer (end-to-end) perspective.

Image 6.1 – The SPS Delivery System, complete high-level system model



This representation of the overall delivery system was verified as accurate by an organisational team headed by the Chief Operating Officer. The high number of connections between the activities reflects a highly-interactive delivery system. This process is initiated with information received from the claimant, and it is complete when the claimant received a final decision from SPS detailing the decision made on the claim determined by the individual claim characteristics.

This model is not intended to show sequence; it intends to show the flow of claims through the delivery system. It should also be noted that the models do not reflect the flow of every case, only the possible flow for cases in the delivery

system. The pathway through the delivery system changed as a result of the work required to complete each individual claim. The model in this case shows the possibility of multiple circular flows, where a claim moves back to previously completed activities as a result of changes which might have negated the prior activity.

The number of different teams and IT mechanisms required in this delivery system appears to be quite high. The mechanisms (coming from the bottom of each square in the model) show a wide range of internal teams, external contractors, and IT systems which all need to integrate in order to facilitate the operation of the delivery system. Further detail on the degree of automation can be found in section 6.4.5 below.

Image 6.1, above, also highlights the number of direct customer contact points in the system, described in the models as '*customer correspondence*' and '*customer data*'. These points of contact describe the degree of customer contact in the delivery system, which is further described in section 6.4.7 below.

6.4.1 Accuracy/Efficiency Trade-off

Observations of claim valuation revealed a delivery system that required high levels of accuracy in the output to the customer. This manifested itself in many ways.

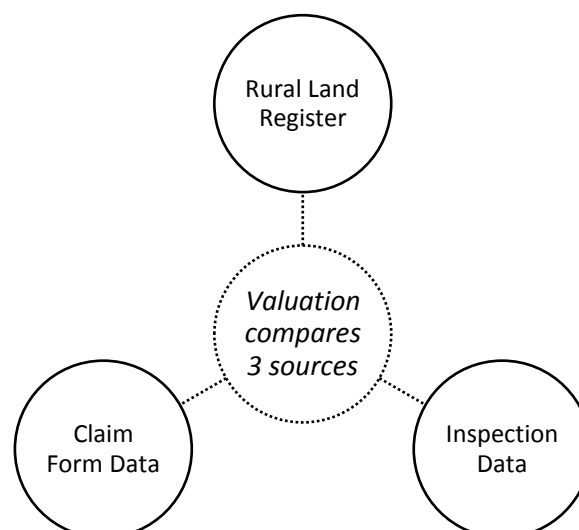
The accuracy of land measurements was emphasised by both case workers and by inspectors. The mandate requires land parcel measurement accuracy to two decimal places (EC Reg. 1782, EC, 2003; Annex VII, §A.1-2). For example: during the research period, the OPT/PMG was debating the approach to measurements of land boundaries which changed seasonally, such as river banks. In drier times when a river was low, more land could be used by the farm, thus rendering it claimable. The debate discussed the potential for land to still be used by cattle even though under shallow water; which introduced the concept of claimable land used by wading cattle. Despite the humorous nature of the debate (and related mental imagery), the fact that the discussion was considered as an impact to claim valuation exemplifies the level of consideration for accuracy.

An additional observation on the pursuit of high levels of accuracy in the delivery system came from the interviews on payment accuracy. Interviews with WCWs, Overpayments, and Finance revealed that payments were carefully calculated to the nearest cent. When it was recognised that a claim was over/under-paid, the calculation and subsequent credit/debit to that account was similarly calculated to the nearest cent. These workers stated that it was a normal occurrence for correspondence to be sent to a claimant in debt, where the cost of the postage for the correspondence was more than the debt owed.

Accuracy for the scheme was observed as high as a result of the rules mandating such high levels. For instance, if a measurement of a land parcel was found to be inaccurate (to the tolerances described above) new measurements would be entered for the current year and all past years where the new measurement applied. This would have the effect of changing payment values for past years, altering the balance of the claimant's accumulated debt/credit. The rules stated that valuation errors in past years were not allowed to be forgiven or ignored.

Land included in a claim was valued by analysing three sets of land-based data: Rural Land Register (RLR), claim form data, and inspections (when performed). This is illustrated in Figure 6.4.

Figure 6.4 – Data compared for valuation



To ensure accuracy and avoid potentially fraudulent claims on land that did not exist, the land parcels from the claim were compared to the same parcels in

maps from the official cadastre, the RLR. The RLR used satellite imagery and the results of recent inspections to produce an officially recognised parcel size and location. The RLR was intended to be the point of comparison and the more trustworthy source of data; it was also referred to as the base data. Parcel data held in the RLR could only be altered by physical inspections and new satellite imagery. Parcel data was linked to a particular claimant, which meant that when a pre-populated claim form was produced the same set of land parcels included in the previous year's claim would be included on the pre-populated claim form. This produced a customised pre-populated form for each returning claimant.

The second source used in analysis was data submitted by the claimant on the claim form. Claimants submitted detail on each claimed parcel of land. It was possible for a claimant to add new parcels of land to a claim, along with an equal set of entitlements.

The third set of land data was the data produced by physical inspections. Physical inspections were undertaken in three circumstances:

- a routine inspection as part of a larger program of work (such as cross-compliance, described in Section 6.2.2 above)
- from an annual program of mandatory random inspections of 5% of the claimed land
- to investigate and settle discrepancies stemming from a disputed valuation.

The data produced by physical inspections of land parcels was compared to the data held in the RLR on the same set of parcels. Any discrepancies in the size of the land parcels required the RLR to be adjusted to match the outcome of the inspection. In this way, the results of the physical inspection took priority over the other two sets of data, because it represented the actual, most recent dimensions of the parcel.

The WCW was tasked with resolving land-based errors with these three data sources. The resolution required a high level of accuracy, as the resulting valuations were expected to be correct to the nearest cent (from interviews:

Overpayments & Finance activities). Considered together, the evidence supports the observation that the intended level of accuracy for this delivery system is 'High'. This is presented in Table 6.4, below.

Table 6.4 – Observed level of Accuracy in SPS

Construct	Observation	Evidence
Level of Accuracy	High mandated levels of accuracy	EC Reg. 1782, 2003; Annex VII, §A.1-2 Interviews: - Batching & Paying SBIs-RDG - Investigating Overpayments-EXE

Alongside the pursuit of higher levels of accuracy, a programme of work was also underway to increase efficiency through cost reductions in the delivery system. The ongoing cost of the delivery system was the focus of several hearings in the UK House of Parliament – Public Accounts Committee, which stated a figure of £122 million per year in the first few years of implementation, which is an approximate cost of £1,000 per claim (PAC, 2006; p. EV8 & EV16). The ministers from this particular committee demanded improvements to efficiency in the delivery of the SPS.

The most recent attempt to increase efficiency resulted in a programme of change focusing on implementing 'Lean' methodology for the process of claim treatment. The programme was called the 'End-to-End Review' and was underway at the time of the data collection for this research. The stated goal was to lower the cost per claim, and it was expected to last approximately 18 months. The effort was supported by the CEO, managed by the COO, and carried out by an external consultancy managed by the OPT & PMG teams.

This evidence leads to the observation that high levels of efficiency were the goal of the SPS delivery system. This is presented in Table 6.5, below.

Table 6.5 – Observed levels of Efficiency in SPS

Construct	Observation	Evidence
Level of Efficiency	High desired levels of efficiency.	<p>End-to-End Review, change programme objectives (artefact)</p> <p>Parliamentary Hearings (PAC, 2006; p. EV8 & EV16)</p> <p>Interviews:</p> <ul style="list-style-type: none"> - OPT/PMG - COO

It is important to note that in summary, the design objectives for this delivery system are to be both highly accurate in outputs and highly efficient in the operation of the delivery system.

6.4.2 Batching & Grouping

Interviews conducted with members of the Performance Management Group (PMG) revealed that the organisation had previously explored creating a typology of claims to investigate how each type affected delivery system performance. The types created by the organisation were based on a two-dimensional categorisation: duration of time spent in the delivery system (in treatment) and the number of system-raised issues against the claim. In the analysis performed by the organisation, the two characteristics showed positive correlation. This led the creation of five categories of claims described here in Table 6.6.

Table 6.6 – SPS claim categories

No Complexity	Low Complexity	Medium Complexity	High Complexity	Tail claims
<p>these claims <i>'didn't touch the sides'</i></p> <p>processing time was minimal</p> <p>no extra work was required to treat these claims</p> <p>comprised 37% of the claim population</p>	<p>minimal work required, both in volume and in difficulty</p> <p>processing time was minimal</p> <p>18% of the claim population</p>	<p>work required was routine and not difficult, increased volume</p> <p>processing time was extended, but not unusual</p> <p>8% of the claim population</p>	<p>work was substantial in quantity and highly difficult to resolve</p> <p>processing time required most of the claim year</p> <p>26% of the claim population</p>	<p>so-called because they were the last to be resolved, usually after the deadline set by the mandate</p> <p>work tasks in order to resolve were both very high in volume and in the difficulty of resolution</p> <p>11% of the claim population</p>

The creation of these claim categories is evidence of grouping as described in the MCP literature; grouping can be very effective when employed at the outset of processing claims, similar to a medical triage, where claims are grouped by the similarity of the challenge they present. There was no evidence that any different action was being taken by the SPS as a result of the claim categorisation. The categories were used only as a managerial tool in an attempt to better understand the behaviour of claims which affects overall performance. With this understanding, the organisation could act toward supporting the claims that moved quickly through the treatment process, while minimizing the activities which create negative characteristics in those claims that were very difficult to treat to completion.

Evidence of batching appeared only in the observations of the payment of claims by the Finance department. Completed claims that resulted in payments were grouped into batches of 10,000 to be paid. The nature of the payment

process was such that only the value of the payment was drawn from the claim management system. The claimant account details were drawn from the Customer Registration databases. This aligns with the description of ‘Batch’ work from the OM literature, whereby a larger number of similar outputs (the ‘batch’) are made in a single production run as a way of achieving economies of scale (Slack *et al.*, 2010, *inter alia*).

The evidence of the presence of both Batching and Grouping techniques is summarised in Table 6.7, below.

Table 6.7 – Observations on the presence of Batching & Grouping techniques in SPS

Construct	Observation	Evidence
Grouping	<p>Five groups created based on the challenge posed to the delivery system; groups defined by placement against two dimensions (complexity & ability to execute):</p> <ol style="list-style-type: none"> 1. No complexity – 37% of claims 2. Low complexity – 18% of claims 3. Medium complexity – 8% of claims 4. High complexity – 26% of claims 5. Very high complexity – 11% of claims 	<p><u>Artefact</u>: ‘<i>Customer Segmentation</i>’ presentation, 1 April 2009.</p> <p>Interview with PMD:JK</p>
Batching	Fully treated claims held in batches for payments at a previously determined time; due to payment cycles for the wider organisation.	Activity-centric interview; Finance – “Make Payment” “Select & Check SBIs” sub-process (A1.1.1).

The method of ‘*Standardised verification & valuation*’, as described in the Mass Claims Literature, is not present in this case. Standardised verification and valuation intends to reduce the time and expense of thoroughly reviewing and verifying individual claims by applying standard values to similar types of claims. The SPS mandate is very clear about how claims are to be verified, and even more specific about the requirement for independent and unique valuation, as

was discussed in-depth in the section on the Accuracy/Efficiency trade-off, found in Section 6.4.1 above.

6.4.3 Degree of Employee Discretion

Observations of the delivery system showed very little evidence of employee discretion. The delivery system used an inflexible process which could not be bypassed by workers. The assessment of land parcels, either on the claim form or on the land register, required high levels of accuracy. This eliminated any possibility for discretion by the employee.

One of the most extreme examples of the lack of discretion was found in the calculation of payments (Overpayments and Finance activities). In interviews with the Overpayments Team, it had been determined that some claimant accounts were in credit or debit by very small sums. According to one interview subject, that sum could be less than the value of first-class postage. The mandate which established the rules governing the process required payment “*in full ... once a year*” (EC Reg. 1782EC, 2003; ch.5, art. 28, s.1-2). Had the workers in this area been given some degree of discretion, such minimal sums would be either forgiven (in the case of debt) or carried to the next claim year (in the case of credit). This was not the case. No discretion was allowed, and the account had to be settled for the precise amount. Any future adjustments were to be similarly calculated and finalised.

Additional evidence on the lack of employee discretion is presented in the next section on worker skill level, as it speaks to both characteristics. It describes a very rigid set of instructions for workers to follow when treating claims. Called ‘desk instructions’, they were a set of inflexible approaches to addressing the known errors found in claims. Interviews with WCWs showed how workers were required to follow these instructions precisely. When the instructions did not resolve the issue, workers were not allowed to use their own discretion to solve the problem. Instead, they were required to escalate the problem to higher levels of management. At no point was the employee allowed to use their own discretion in treating the claim.

This evidence supports the observation that very low levels of employee discretion were present in the SPS delivery system, as summarised in Table 6.8, below.

Table 6.8 - Observations on the level of Employee Discretion in SPS

Construct	Observation	Evidence
Degree of Employee Discretion	Very low levels of employee discretion.	WCW interviews Finance interview OP team interview EC Reg 1782 (2003) chapter 5, article 28, sections 1-2

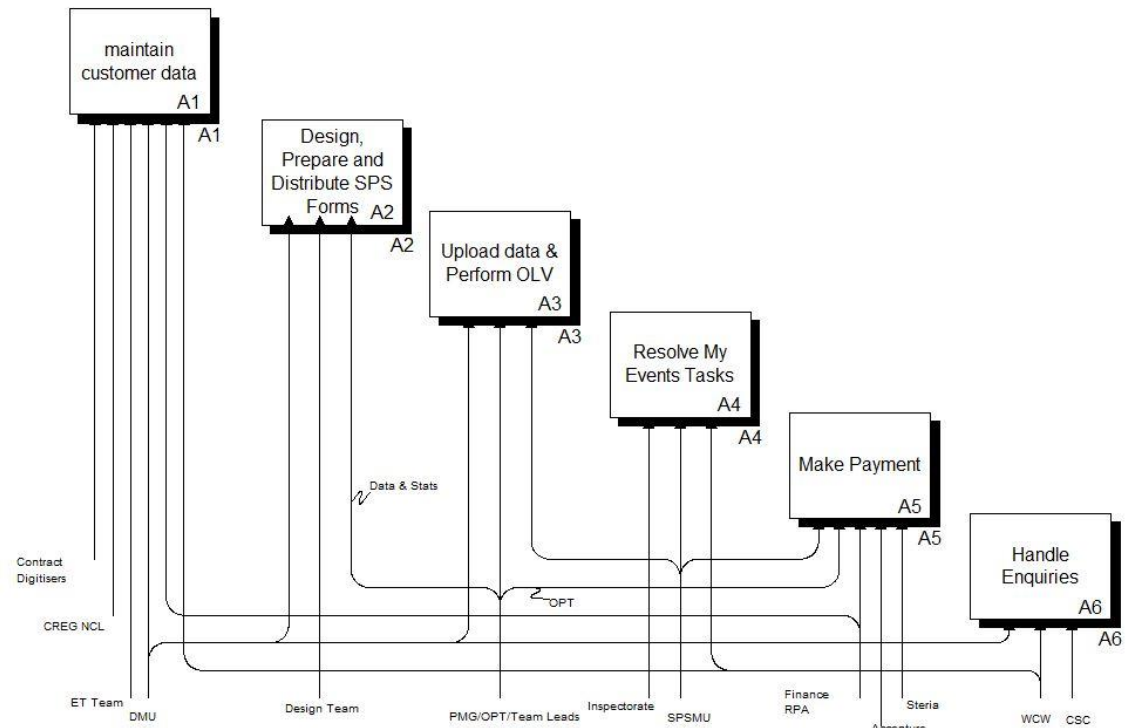
6.4.4 Worker Skill Level

The various workers observed from all stages of the delivery system are illustrated in Image 6.2 below, a high-level representation of the SPS delivery system with an isolation-view of the workers involved in each area of the process. This section will use data collected to classify the skill level required to perform the work in each area of the delivery system. The skill level required to successfully perform each job role was observed to vary from low skill to highly-skilled, depending on the role.

However, before the observations and evidence of worker skill level are presented, additional observations on the 'desk instructions' discussed in the previous section will be presented. A standard procedure was put in place to support the worker in the performance of day-to-day work. If the work required was routine for the SPS, a set of 'desk instructions' was produced. These desk instructions were created for nearly every task that a worker could encounter and stored in a help window called the 'Desktop Helper'. The window was accessible from every work-screen within the IT system, RITA. These instructions were updated whenever an exception was found. During the data collection interviews, the workers stated that the frequent updates to the instructions were problematic in that they were constantly re-learning new

procedure. Despite the frequent changes, this is evidence that desk instructions were used as a means of keeping worker skill level low; whereby workers had only to follow detailed instruction.

Image 6.2 – High-level SPS Delivery System, worker isolation



Low Skill

There were several areas of the delivery system where the use of workers with lower skill levels was the most appropriate. The maintenance of customer data (sub-process A1 from Image 6.2, above) consisted of registering new claimants, and updating existing customer data. The registration of new claimants consisted of receiving the customer registration form (CREG01) from new claimants and entering the details it contained into the organisation's claims management IT system, RITA. Workers would ensure the claimant did not already exist in the system, then send correspondence to the claimant with the relevant results (source: CREG NCL interview).

This work was primarily data entry work which required basic training on how to use the relevant area of the IT system (interviews with CREG & CSC.) Very little judgement was required, and when it was needed it consisted mostly of deciphering illegible claim forms.

Workers in the Document Management Unit (DMU) faced a similar situation where the work was primarily data entry, and registering & scanning incoming correspondence. Again, minimal judgement was required in interpreting illegible incoming data, but the work itself could be completed by workers with basic training on how to use the relevant IT systems. The instance within “Upload data & Perform OLV” (A3) where DMU operates, the work within that step is simply to upload scanned data from the claim form (called “SP5”; attached as Appendix F) into RITA. Again, there is no decision-making step here where the decision made by the DMU worker would have an impact on the valuation of the claim.

Inspectorate teams performed physical inspections of claimed land to verify that the conditions of the land as stated on the claim. The inspector used a dossier containing the organisation’s own maps and claim information (see model: ‘Managing and Performing Inspections’, Level: A0). Interviews showed that the inspectors required basic levels of training because the dossier and maps simply had to be compared. Measurements of land parcel size were taken using a GPS device, and readings were simply transcribed into the claim dossier. Discrepancies were noted and sent back to the regional SPS office where the claim’s WCW was based. The dossiers were put together by administrative employees who used a clear set of instructions to extract the relevant documents from the IT system. From this evidence, the skill level of employees in this team was observed to be low.

Lastly, the sub-process of handling enquiries performed by the Customer Service Centre (CSC) was also observed to require moderately low skill levels. Workers took incoming telephone enquiries and followed pre-determined procedure (as described in the Desktop Helper described above) to move the enquiry through the resolution process. The data collection at the CSC (Model: “Manage Customer Enquiries”) revealed that CSC workers were given the task of triage, where an enquiry was first sorted by type then a rigid procedure for each type of enquiry was followed. In all cases, the CSC worker was not responsible for adjusting any data which would affect valuation of the claim. Also in all but one case, the CSC worker referred the enquiry to another department for resolution. The exception was in mapping enquiries where the

claimant requested a new set of official maps of their land parcels. In this case, the CSC worker could produce and send the maps to resolve the enquiry.

From this data, CSC skill levels were observed to be relatively low.

Medium Skill

‘Medium skill’ was observed to be the amount of training and knowledge required to review the status of a claim, assess the situation, use judgement, and apply the relevant procedure to treat the claim. Assessment and judgement were used to identify known issues or problems with a claim then make the connection between that problem and the relevant prescribed procedure from the desk instructions for resolution. This required no further analytical skill or creative problem solving.

The whole case worker (WCW) was observed to have medium-level skills. WCWs could be hired directly into SPS and trained on-the-job. WCWs were allocated a set of claims containing errors requiring resolution. The specific detail of the errors was not known prior to the WCW opening the electronic claim dossier. An error was generated if the data submitted in the claim fell outside a set of parameters, most commonly:

- The area claimed would fall below the minimum area of claimable land; by either individual parcel or by total area claimed
- area of claimed land exceeded the known area for the same parcels held in RLR
- the land use codes were not reconcilable (*i.e.* out of date, invalid)
- the amount of entitlements was insufficient for the amount of land claimed.

The WCW was required to assess the error and the claim, decide the resolution (from the given set of desk instructions), and resolve the error using the desk instructions. If the WCW required assistance, they could request guidance from a more experienced colleague who acted as ‘Site Support.’ This person would again assess the error and claim and direct the WCW to the appropriate set of instructions for resolution. In those cases where the WCW and the Site Support could not determine the appropriate resolution, the claim would be referred to

the SPS Management Unit (SPSMU). The SPSMU is discussed below in the section on highly-skilled workers.

The WCW skill-level allows them to assess known errors using a moderate amount of training and minimal experience; then act by implementing a set of rigidly-defined steps to resolve the error. For these reasons, the observed skill level of the WCW was medium.

The workers in the finance team were very similar in the nature of their skill set. The tasks these workers were given were narrow of focus. Finance teams performed administrative tasks which led to payment or debt collection from a claimant. The worker was required to complete a set of predetermined tasks clearly illustrated with relevant documentation. Workers in this area were required to have prior experience working with financial systems. These workers received specific training for their duties. They were not required to use a high degree of judgement in performing their duties. However, the specialist skills in financial administration supports the medium skill level observation.

High Skill

As described above, the SPSMU was observed to be the team that was required when the WCWs encountered anything outside the known set of claim-related errors. This team consisted mostly of former WCWs with extensive experience of SPS and similar schemes. Interviews revealed that during the standard process of claim treatment, if the WCW was confused about how to resolve an issue, the escalation process required a request for assistance from Site Support. If the problem could not be resolved, it was escalated to the SPSMU. The SPSMU would analyse the problem; develop a standard procedure for addressing the issue; update the Desk Instructions for all WCWs; and issue a notice about the new procedure to all WCWs.

This approach required the SPSMU team members to be highly skilled in several areas. The analysis of the error required the SPSMU workers to be able to navigate the IT system and work with the IT department to determine if the fault was technical in nature. This required externally-provided specialist

training. Understanding the nature of the error also required the intuition and experience of the worker, which helped in narrowing down the potential sources of the error. This skill set was wider in focus and required a broader understanding of contextual factors. This places the skill level of the SPSMU team members as high for this delivery system.

The Entitlement Corrections (EC) and Entitlement Transfers (ET) teams were tasked with linking entitlements to claimants. As described earlier, entitlements were tradable and divisible by their owners. In the initial claim year (2005), successful claims were given a set of entitlements to claim in future years; the entitlements were linked to the eligible land. According to the workers interviewed, the distribution rate was:

One hectare of claimable land = One hectare of entitlement to claim

The duty of the ET team was to ensure the proper transfer of traded entitlements and the accurate division of entitlements. These tasks on their own are simply administrative tasks which require low skill levels and basic training on the procedure employed. However, these teams were also required to reconcile adjustments in entitlements which stemmed from adjustments of their counterpart land parcels.

For example, if a land parcel was inspected and the area was found to be different than either: 1) the claimed area; 2) the area held in the RLR database; then the parcel's area was adjusted to reflect the inspected result. If the parcel was determined to have been that size prior to the start of SPS delivery (in 2005) then the changes had to be cascaded across every previous claim year back to 2005. Adjusting the original land parcel size also meant that the original entitlement was issued was incorrect and would also have to be adjusted for every claim year in which it was used in a claim. This process of adjustment becomes very complicated if the entitlement was divided and traded; as the divided entitlement would be adjusted by the proportional fractional amount for every claim year, and for each claimant who used the adjusted entitlement in a claim.

This act of reconciling entitlement adjustments across the network of owners was called ‘Entitlement Correction’ (EC) and had the potential for great complication. Observations from the interviews with this team revealed that the EC team members required specialist training (in both procedures and the use of accompanying IT tools), an ability to make sense of complicated scenarios, and an increased level of experience in SPS. This places the relative skill level of EC/ET Team as highly skilled.

The three different worker skill levels observed in SPS are summarised in

Table 6.9, along with a summary of the evidence on which these observations are based.

Table 6.9 - Observations on Worker Skill Level in SPS

Construct	Observation	Evidence
Worker Skill Level	Low skill level in the following teams: <ul style="list-style-type: none"> - DMU - CREG NCL - CSC - Inspectorate 	Interviews and direct observations: <ul style="list-style-type: none"> - ‘Manage Documentation’ - ‘Manage Customer Data NCL’ - ‘Manage Customer Enquiries CSC’ - ‘Managing and Performing Inspections’ - ‘Process Inspection Result’
	Medium skill level in the following teams: <ul style="list-style-type: none"> - WCW - Finance 	Interviews and direct observations: <ul style="list-style-type: none"> - Series of ‘Process SPS Claims’ models - ‘Batching & Paying SBIs’ model
	High skill level in the following teams: <ul style="list-style-type: none"> - ET/EC Team - SPSMU 	Interviews and direct observations: <ul style="list-style-type: none"> - ‘Entitlement Correction’ model - ‘Entitlement Transfers’ model - Series of ‘Process SPS Claims’ models

Several of the worker teams shown in

Image 6.2 – “*High-level SPS Delivery System, worker isolation*” above, are not included in the analysis. These were excluded due to the nature of the work performed. As described in section 6.2.1, the unit of analysis for this thesis was

the operate processes. In this case, several of the modelled worker teams were part of either the '*manage*' or '*support*' processes in the SPS. These are listed and described below in Table 6.10.

Table 6.10 – Manage & Support Process Worker Teams

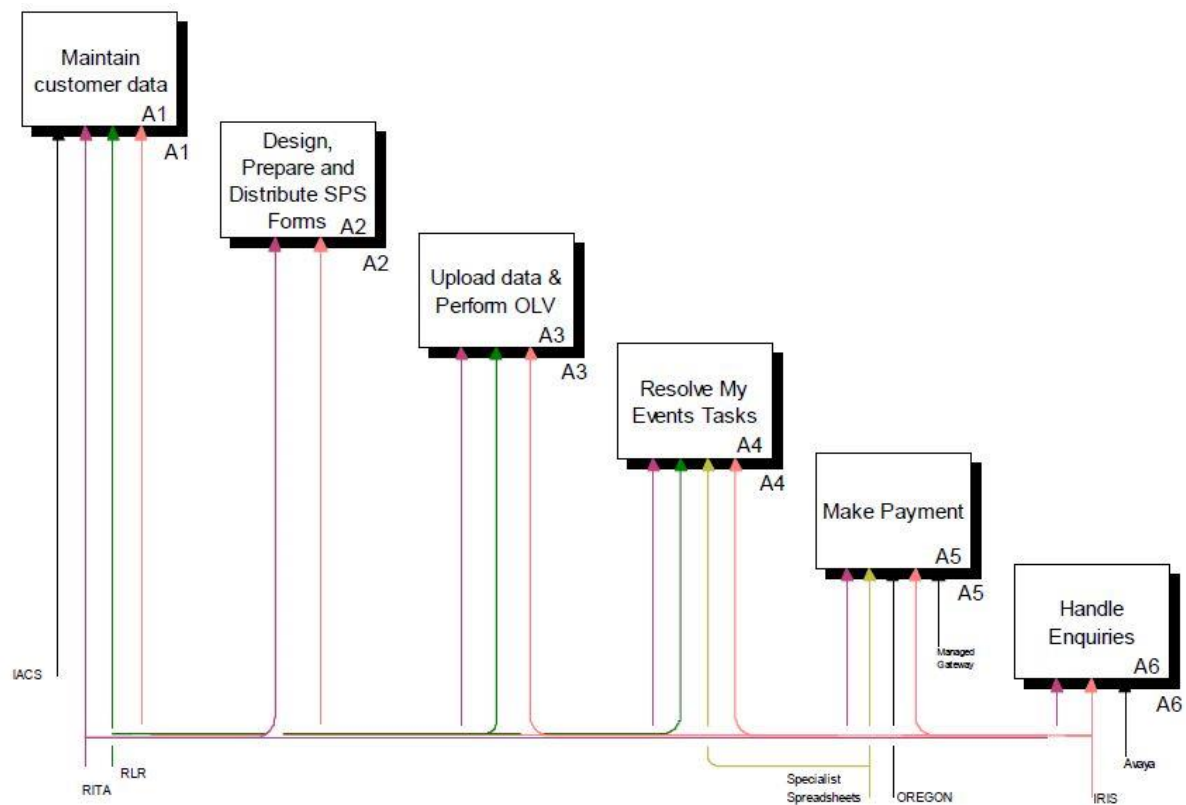
Worker Team	Description of Duty	Manage / Support
Contract Digitisers	Created digital maps of land parcels. Data was used for claim valuation. This work is similar to that of purchasing maps or cadastres from a third party provider.	Support
Design Team	Designed the various formwork used by SPS.	Support
PMG/OPT/Team Leads	Distributed work across the sites and ensured work queues were populated with required claim types; created and implemented performance measurements; monitored progress.	Manage
Accenture & Steria	<p>These teams consisted of workers from an outsourced service provider.</p> <p>In the case of Accenture, the involvement in the 'Make Payment' sub-process consisted of taking direction from SPSMU to create payment batches.</p> <p>Working with Steria, Accenture would support the movement of batches from one IT system to the next.</p>	Support

6.4.5 Degree of Automation

Attempts at automation to manage the flow of claims in the delivery system were significant and pervasive. This is primarily evidenced by the main IT system, RITA, which spanned nearly the entire delivery system. The largest divergence away from a central IT system occurred in the final stages of the process. While RITA managed claim flow through the majority of the delivery

system, the evidence shows that payment management work happened outside RITA. In this regard, RITA was used for every significant point of claim work, except for the last steps of triggering and completing payments. Interviews with Finance and OPT determined that the inability of RITA to complete the process is what drove the overlapping of RITA and two other IT systems: the '*Managed Gateway*' and OREGON systems. These overlapping systems are illustrated against the high-level model of the delivery system in Image 6.3, below. RITA was observed as only delivering claim data to the *A5-Make Payment* sub-process. Once claim data is extracted from RITA, the Managed Gateway and OREGON systems complete the payments.

Image 6.3 – Observed IT System overlap in SPS



Interviews with Finance revealed problems in previous claim years where the automated transition through these final steps failed. This resulted in the creation of a monitoring and quality assurance activity called '*Mind the Gap*' which monitored all transactions through the managed gateway from RITA into OREGON. This movement was managed by employees of Finance. As a

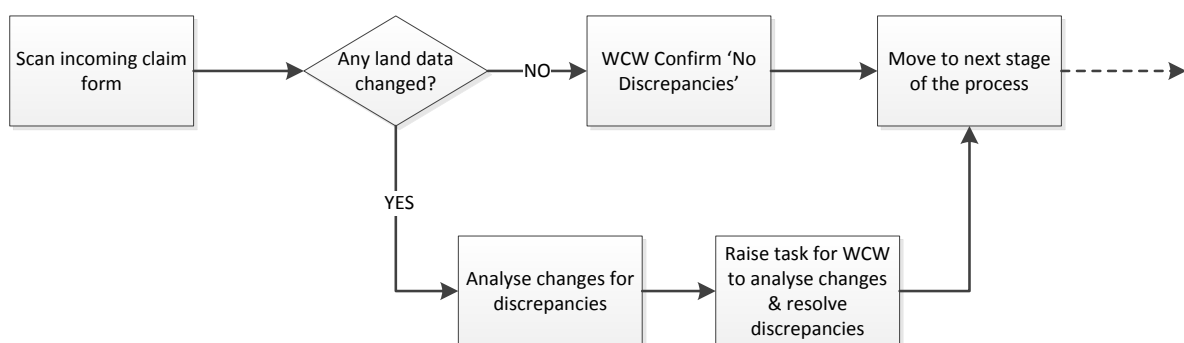
result, the final stages of the SPS delivery system were observed to have low levels of automation.

This was the most significant diversion away from the managed flow of the IT system. The following section highlights other departures from automated flow in favour of the use of specialist tools and off-system working (also illustrated in Image 6.3 above). The need for work to be done outside of RITA raised questions about the viability of that IT system, which will be addressed in detail in the conclusions of this chapter.

While the IT system managed claim flow, worker intervention for decisions was required during the normal course of treating a claim. The IT system facilitated the decision-making process. Supporting documentation and correspondence, official maps, and other required tools and information sources were designed into the worker interface areas of RITA for ease of access.

Other examples of automation include Optical Character Recognition (OCR) to automate the identification of claimant changes to land data on the submitted claim form. These data changes were registered by OCR scans of the submitted form and automatically entered into the electronic claim file. This action prompted RITA to automatically raise a task for the worker to verify the adjustment (this process is illustrated in Figure 6.5).

Figure 6.5 – Decision-tree on task creation for land data discrepancies



Any discrepancies between claimed land size and the land size held in the RLR database also automatically raised a task for workers to resolve. It was observed that as claimants submitted changes to their data, more discrepancies were created, and more tasks were raised for resolution because the managers

of the process did not have confidence in the OCR system's accuracy. Interviews confirmed that those claims which remained unchanged were the most likely to pass through the treatment process with no difficulty.

In an effort to increase the degree of automation, claim forms were sent to the claimant already populated with the prior year's claim data. Pre-population of the claim forms was allowed by the rules governing the process (EC Reg. 1782EC, 2003; ch.4, art. 22, § 2), and it intended to increase efficiency through automation based on the ideas presented above. The aim was that for unchanged claims, the claimant would simply sign and submit their claim form. This would, notionally, also limit the potential for the claimant to submit data errors; such as transposing numbers or parcels, accidentally omitting parcels, and so on.

The summary position for this characteristic, shown in Table 6.11 below, therefore considers the entire delivery system. Multiple IT systems were observed which were in place to provide high levels of automation across the delivery system. Additionally, other constructs were observed to be in place to support automation, such as pre-population of claim forms, OCR systems for data entry, and using satellite imagery for mapping land parcels.

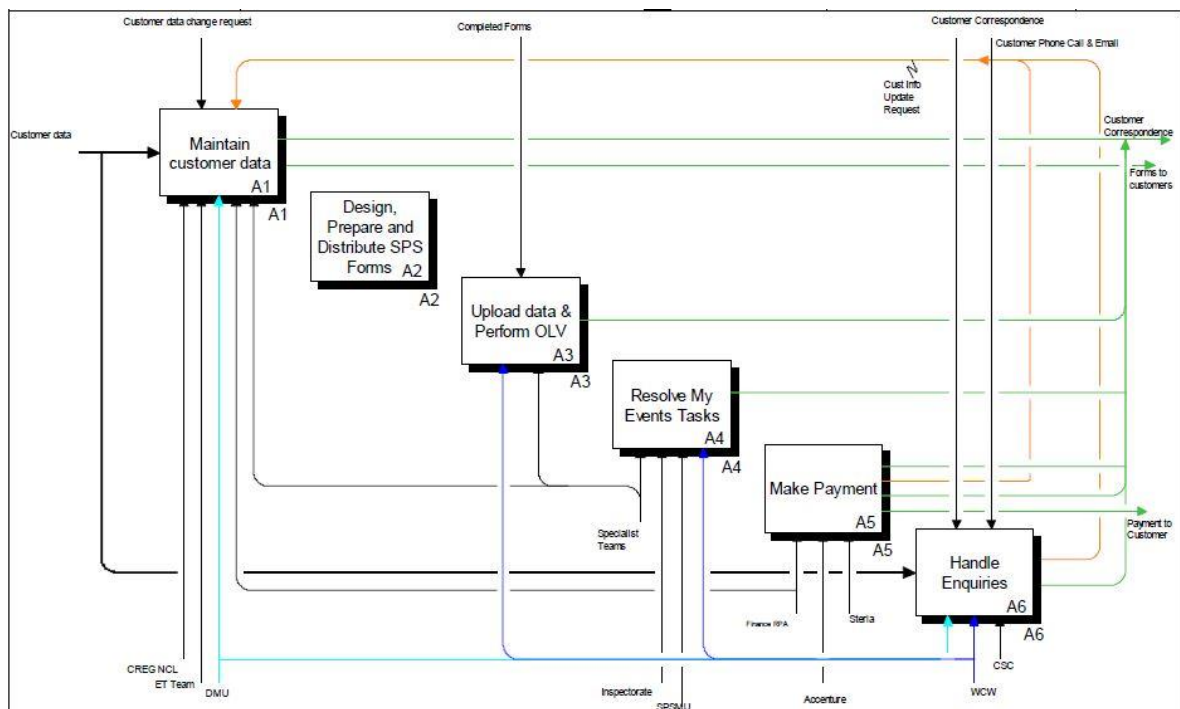
Table 6.11 – Observed Level of Automation in SPS

Construct	Observation	Evidence
Degree of Automation	High levels of automation	<p>Significant presence of IT systems and computerised tools for specialist work.</p> <p>OCR for mass data entry.</p> <p>Pre-population of claimant data on SP5 claim forms.</p> <p>Automated map updates through satellite imagery.</p> <p>Supporting interviews, models:</p> <ul style="list-style-type: none"> - SPSMU-NA - Model: IT system overlap - Batching and Paying SBIs-RDG - Updating the RLR-RDG

6.4.6 FO/BO Configuration

The design of the SPS delivery system shows a clear FO/BO separation. Contact initiated by SPS with the customer was evidenced at several stages across the delivery system, which is reflected in the arrows leading to 'Customer Correspondence' in following model, Figure 6.6. All customer-initiated contact with SPS is illustrated in the thicker black input arrow.

Figure 6.6– The SPS Delivery System, points of customer contact



While many points of contact appear to exist, the claimant is never present during the treatment of the claim by the WCW. For those errors which require input from the customer, FO/BO separation is maintained. The official customer input to resolve these errors is received by post, despite telephone contact (from the SPS to the claimant). This phone contact is informative for the WCW, but claim adjustments are not made until official correspondence is received from the claimant (this is done to establish an audit trail, showing the action was always requested/approved by the claimant).

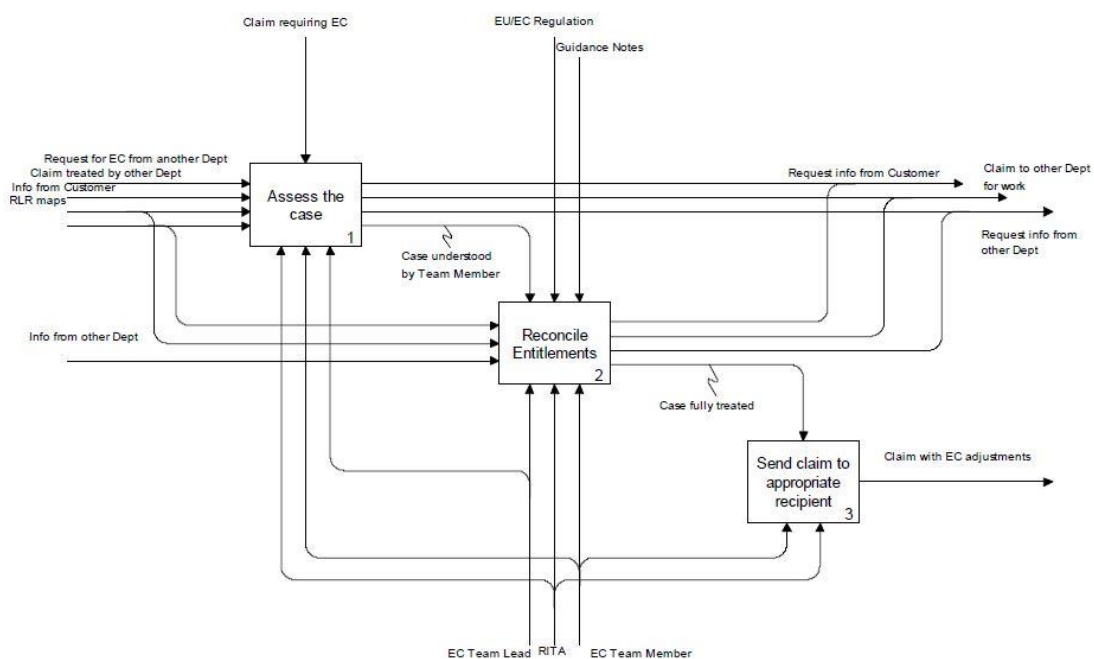
There were three points where the FO & BO came in contact with the claimant. The first point was observed during inspections to resolve land-based errors. In

this case, a member of the inspectorate was physically present on the property of the claimant. However, the claimant was not involved in the data collection as the inspection had to be performed without the influence of the claimant in order for the result to remain objective (source: Managing & Performing Inspections-RDG).

The second observed point of contact was when claimants were permitted to bring completed claim forms to 'Drop-In Centres' in regional offices for an initial quality check. The drop-in centres were opened several years into the operation of SPS. This check simply observed that the required data fields were completed; the form was legible; and that the claimant's signature was affixed. No advice was allowed to be given on how to increase one's claim, nor would the examining worker be allowed to offer an opinion on potentially questionable claims.

The third point of claimant contact was during the resolution of very large, complicated errors linked to networks of claims associated with Entitlement Correction (EC). In order to resolve these errors, close contact was observed between case workers and the claimant. The contact was required for the EC worker to relay the complications to the claimant; together they could more quickly and efficiently identify evidence which would assist in resolution.

Image 6.4 – Entitlement Correction process model



Again, the claimant would not assist in performing the valuation, only in clarifying claim data. This is evidenced in the process model for Entitlement Correction shown as Image 6.4, above. It is clear that information from the customer is required, but the customer is not shown as one of the mechanisms performing the task of reconciliation of the entitlement.

6.4.6.1 Location of facilities/delivery system

The delivery system operated in six offices across England. The locations were Newcastle, Northallerton, Carlisle, Workington, Reading, and Exeter; shown in Figure 6.7, below.

Figure 6.7 - RPA sites in England



The decisions about the number and location of these sites were not driven by a strategy to be in proximity to the claimants. If one considers that the claimants to the process were distributed evenly across the country, then the locations of the delivery systems were not evenly distributed by geographic location. Without the assumption of even distribution of claimants, it is still unreasonable to say that the locations were chosen for strategic delivery reasons. There were clearly a disproportionate number of facilities located in the north, with two in the south. The area in the geographic centre of the country was left without a local office.

These observations show that the SPS was neither completely centralised with all of its resources in a single location; nor was it fully de-centralised, placing resources in closer proximity to the claimants. Given the distribution of claimants across the country, the design characteristic of ‘location of the delivery system’ is shifted primarily toward centralisation.

The evidence gathered on the degree of separation of the FO and BO shows a high degree of separation of the customer from the decision-making/production process. When synthesised with the observations on Customer Contact in the following section, this is additional evidence to support an observed high level of separation; summarised in Table 6.12, below.

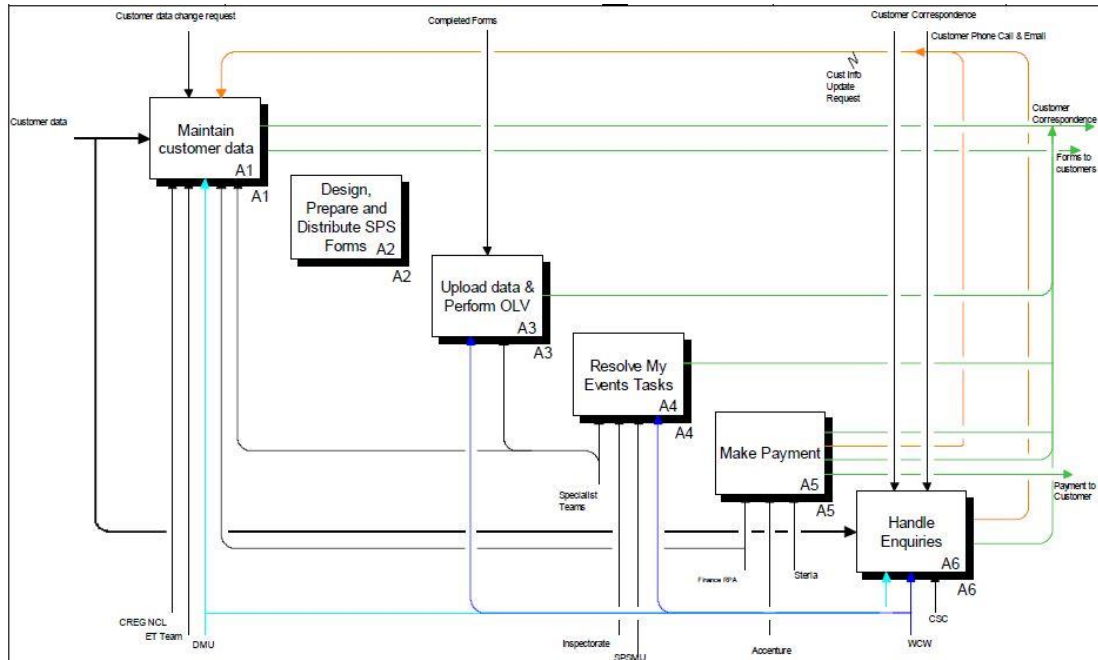
Table 6.12 - Observed Level of FO/BO Separation in SPS

Construct	Observation	Evidence
Degree of FO/BO separation	High levels of separation	Supporting interviews, models: <ul style="list-style-type: none"> - Process SPS claims, high level model. - Managing & Performing Inspections-RDG - Entitlement Correction - EXE

6.4.7 Degree of Customer Contact

The model provided in Figure 6.8 below, presents a delivery system in which contact with the customer may be required in five of the six sub-processes.

Figure 6.8– The SPS Delivery System Model, points of customer contact



The activities which comprise the sub-process of ‘Design, Prepare and Distribute SPS Forms’ (A2 in the diagram) are the sole sub-process where information is not requested from the claimant. The model shows those instances where contact was possible. Contact with the claimant was observed to be minimal across the delivery system for all but the largest, most complicated claims.

For all claims, there was a potential for contact via the SPS call centre (Customer Services Centre – CSC) or in one of the ‘drop-in’ centres located at the six regional offices (prior to official submission). Both the drop-in and call centres offered very general advice about how to fill out the claim form, and what other documents may be required to accompany the form. The centres were instructed to not give any advice or estimation about valuation of the claim, as this could mislead the claimant if the advice contradicted the eventual valuation.

The outcome of the customer contact observed in the 'drop-in' centres prevented the submission of claims which would be rejected based on formatting errors or technicalities; such as the lack of the claimant's signature. This contact appeared to be a quality assurance activity, ensuring that the submitted claim could be processed. There was no impact on claim valuation.

After submission, contact with the claimant was limited to only those times when workers required an answer to a question raised from the treatment of the claim. Contact by phone was minimal, and workers were required to communicate any questions by post; requesting written responses. In this way all communications could be logged and attached to the claim dossier. This allowed anyone in the organisation to view the claim communication, progress, and the evidence that affected claim valuation.

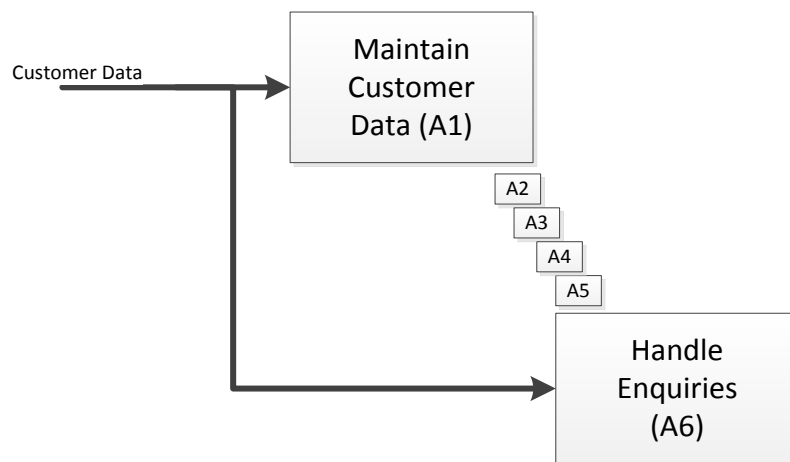
During processing, claimants could submit additional information or request a progress update. This could be done by email, post, or by phone. Responses to requests for an update were required to be very general and limited to the stage of progress. Requests by phone were managed by the CSC. The request and contact was logged on the electronic claim dossier.

If the nature of the contact was to provide additional information, the claimant was asked (via written, official communication) to submit information in documentation by post or email in all cases. If the processing worker required clarification as a result of new information, the claimant would be contacted. With the exception of the small percentage of large, complicated claims, there were no instances where the claimant would be present during the processing of the claim; nor were there any instances where the claimant would take part in the work to process the claim.

The point of the greatest contact with the claimant was when a claim was subject to a physical inspection of the claimed land parcels. In this event, an inspector may have direct and prolonged contact with the claimant. However, it is important to note that the inspector had no part in valuation. In fact, the inspectors did not have contact with the case workers, as they submitted results of the inspection in a physical dossier to the regional offices. In this case, even though the level of contact was high, it was not associated with valuation.

The result of the claim treatment was communicated to the claimant by post. The claimant could register an appeal, but only by forms submitted by post. For nearly the entire process, claimants were separated from the back office which performed the claim treatment. Only when very specific clarification from the claimant was required did a back office worker directly receive information from a claimant. This was shown in Figure 6.8 above; however a simplified model is presented here in Figure 6.9 to better illustrate the only two possible points of contact for the claimant with the back office.

Figure 6.9 – Limiting inbound claimant contact



The data shows that customers were not permitted to make direct contact with the workers completing the valuation tasks on a claim. All in-bound contact was either by post or managed by a call-centre.

In contrast, complicated claims were observed to experience higher levels of contact. The extremely high volume of: documentation; entitlement trades and adjustments; land parcel changes; and other similar changes were likely to require clarification from the claimant. These claims were generally held by large farming corporations such as The Cooperative Farms, or other large private land owners such as The National Trust. Each large claimant was supported by a dedicated team of SPS workers familiar with the details of the claim. These large claims were highly likely to be drawn into entitlement correction work because they possessed so many traded entitlements which were more likely to require adjustments. The complexity involved in both entitlement trading and correction tended to require claimant contact to address questions and provide verification of trades and adjustments (source:

Entitlement Correction interview, Exeter). Direct contact with the claimant continued across the claim cycle to ensure higher levels of accuracy in valuation, and to ensure the claimant was informed of the progress of the claim.

Table 6.13 - Observed Level of the Degree of Customer Contact in SPS

Construct	Observation	Evidence
Degree of Customer Contact	Very low degree of inbound contact, via post or call centre only.	High level process model, showing contact into two sub-processes only. (A1 & A6)
	Higher degree of outbound contact, via post and telephone.	High level process model, showing outbound contact in five of the six sub-processes.
	Very little or no direct person-to-person contact; drop-in centres are the only openly-offered, in-person contact points.	Researcher observations. Process models for each of the 5 separate “Process SPS Claims” activities.

As a result, the SPS was observed to have multiple levels of customer contact, depending on the focal activity. This is summarised in Table 6.13, above.

6.4.8 Degree of Customisation

It was highlighted above that the organisation had six separate locations across England. The processing of claims occurred at five of the six locations (with the exception of Reading, see Figure 6.1, above). A similar process was observed at each site; no significant alteration from the prescribed process was observed. Similarly, observations showed that both the smallest value claims and the largest, most complicated claims followed the standard progression through each stage. From this perspective, the potential for customisation of the procedure or any particular claim was low. This is summarised in Table 6.14.

Table 6.14 - Observed Level of the Degree of Customisation in SPS

Construct	Observation	Evidence
Degree of Customisation	<p>Low customisation; no alternative, abbreviated, or specially-tailored processes were discovered for any claim.</p> <p>Specialist work existed but was considered normal rather than exceptional.</p>	<p>Process models for each of the 5 separate "Process SPS Claims" activities; each reflects the same process.</p>

A slightly different process existed for those claims that required specialist work, but these areas of specialist work were considered part of the standard process. Specialist work was identified as such activities as Commons, Entitlement Correction, Overpayments, etc. If the claim required this work, it was sent at a predetermined, standard point in the process. If the work was not required, the claim simply bypassed that potential deviation.

The exceptions were a small number of claims (the very large, complex claims) not managed at all within the IT systems. The size of these claims created an error in the IT system whereby when adjustments were made to data, the IT system could not successfully implement those changes. Specialist teams would present the required changes to IT specialists who would ensure the claim reflected the described changes accurately by working directly on the database. However, despite the off-system work, no customisation occurred in the treatment process received. In interviews with the SPSMU, off-system treatment occurred on less than 0.5% of the total population of claims.

6.4.9 Degree of Routinisation

The Degree of Routinisation is the summary position of observations made on several of the above characteristics: Worker Skill Level, Degree of Customisation, Degree of Employee Discretion, Degree of Automation, and FO/BO separation; as well as observations on Arrival Pattern of Inputs, Volume & Number of Customers Served Simultaneously, and Response Time from Customer-Initiated Request (Wemmerlöv, 1990). The summary position produces an observation on the degree of rigidity or fluidity of a delivery system.

Table 6.15- Observed Level of the Degree of Routinisation in SPS

Construct	Observation	Evidence
Degree of Employee Discretion	Very little discretion permitted.	Finance interview OP team interview EC Reg 1782 (2003) chapter 5, article 28, sections 1-2
Worker Skill Level	Low skill level in the following teams: - DMU - CREG NCL - CSC - Inspectorate	Interviews and direct observations: - 'Manage Documentation' - 'Manage Customer Data NCL' - 'Manage Customer Enquiries CSC' - 'Managing and Performing Inspections' - 'Process Inspection Result'
	Medium skill level in the following teams: - WCW - Finance	Interviews and direct observations: - Series of 'Process SPS Claims' models - 'Batching & Paying SBIs' model
	High skill level in the following teams where exceptions to the process were managed: - ET/EC Team - SPSMU	Interviews and direct observations: - 'Entitlement Correction' model - 'Entitlement Transfers' model - Series of 'Process SPS Claims' models

Construct	Observation	Evidence
Degree of Automation	High levels of automation	<p>Significant presence of IT systems and computerised tools for specialist work.</p> <p>OCR for mass data entry.</p> <p>Pre-population of claimant data on SP5 claim forms.</p> <p>Automated map updates through satellite imagery.</p> <p>Supporting interviews, models:</p> <ul style="list-style-type: none"> - SPSMU-NA - Model: IT system overlap - Batching and Paying SBIs-RDG - Updating the RLR-RDG
Degree of FO/BO separation	High levels of separation	<p>Supporting interviews, models:</p> <ul style="list-style-type: none"> - Process SPS claims, high level model. - Managing & Performing Inspections-RDG - Entitlement Correction - EXE
Degree of Customer Contact	Low degree of inbound contact, via post or call centre only.	High level process model, showing contact into two sub-processes only. (A1 & A6)
	Higher degree of outbound contact, via post and telephone.	High level process model, showing outbound contact in five of the six sub-processes.
	Very little or no direct person-to-person contact; drop-in centres are the only openly-offered, in-person contact points.	<p>Researcher observations during immersion.</p> <p>Process models for each of the 5 separate "Process SPS Claims" activities.</p>

Construct	Observation	Evidence
Degree of Customisation	<p>Low customisation; no alternative, abbreviated, or specially-tailored processes were discovered for any claim.</p> <p>Specialist work existed but was considered normal rather than exceptional.</p>	<p>Process models for each of the 5 separate “Process SPS Claims” activities; each reflects the same process.</p>
Arrival Pattern of Inputs	Predictable, entire population received in a short period of time.	<p>EC Regulation 1782/2003, Title III, ch.1, art.34, s.2)</p> <p>(See also section 6.5.1)</p>
Volume & Number of Customers Served Simultaneously	High volume, approx. 106,000/year	<p>Organisation artefact: About the SPS (information booklet)</p> <p>Public Accounts Committee, House of Commons, UK (2006)</p> <p>(See also section 6.5.1)</p>
Response Time from Customer-Initiated Request	6 - 13 months	<p>Interviews:</p> <ul style="list-style-type: none"> - Finance: ‘Batching & Paying SPS Claims’ model - OPT/PMG team <p>(See also section 6.1.2)</p>

Based on the observations summarised in Table 6.15, this delivery system bears the characteristics of a highly rigid delivery system, according to Wemmerlöv’s (1990) categorisation.

6.4.10 Postponement

The above observations illustrated instances of customisation that occurred very early in treatment process. The earliest evidence of such an instance is the pre-population of the claim form before it is sent to claimants. As a result, the level of postponement in the SPS is low. This is illustrated in a simplified version of the high-level SPS process presented in Figure 6.10, below. The use of previous-year data can be seen as an input to the A2 activity. The completed

claim form containing pre-population data is received, prompting the start of the treatment process.

Figure 6.10 – Simplified SPS process to illustrate postponement

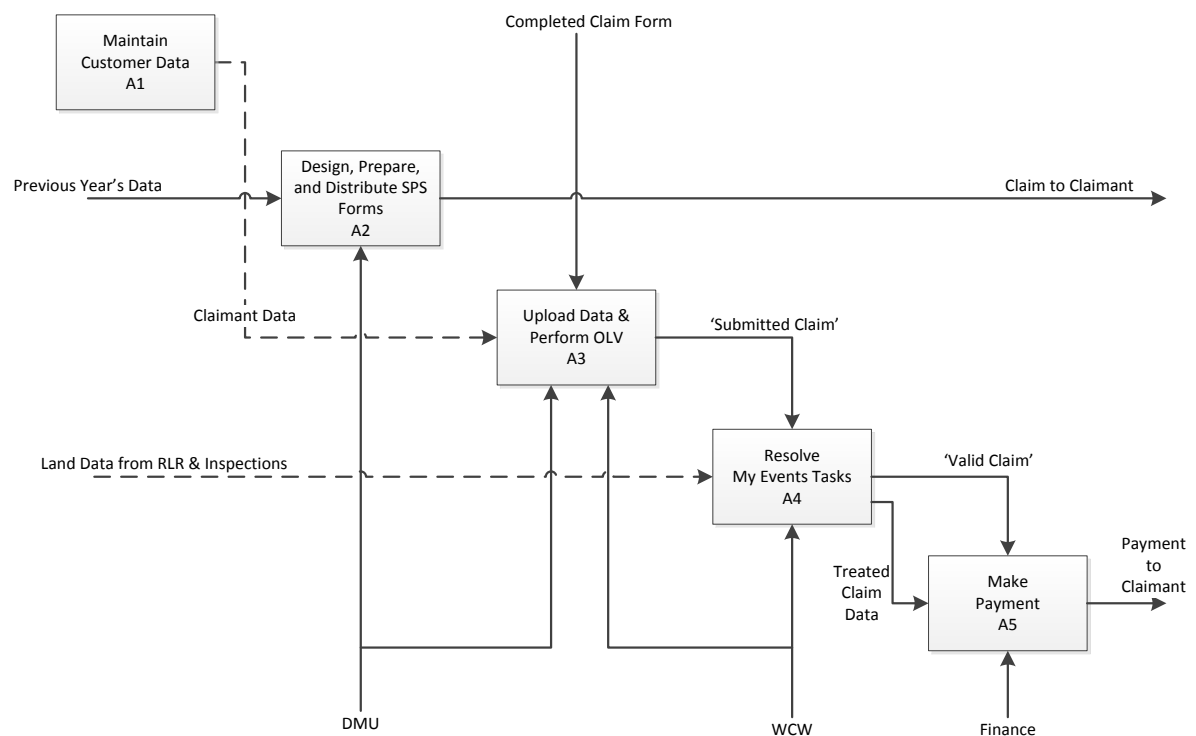


Figure 6.11 - Observed point of Postponement in SPS

Construct	Observation	Evidence
Postponement	Point of customisation is early in the overall process; pre-populated claim form distribution.	Interviews and models: <ul style="list-style-type: none"> - Process SPS claims (6 sites) - Commons (EXE & NA) - Remote Sensing - Cross Border - Managing and Performing Inspections - Managing Cross Compliance Claims

This places the point of postponement at the beginning of A2, right at the start of the overall process for all claims. This is summarised in Figure 6.11.

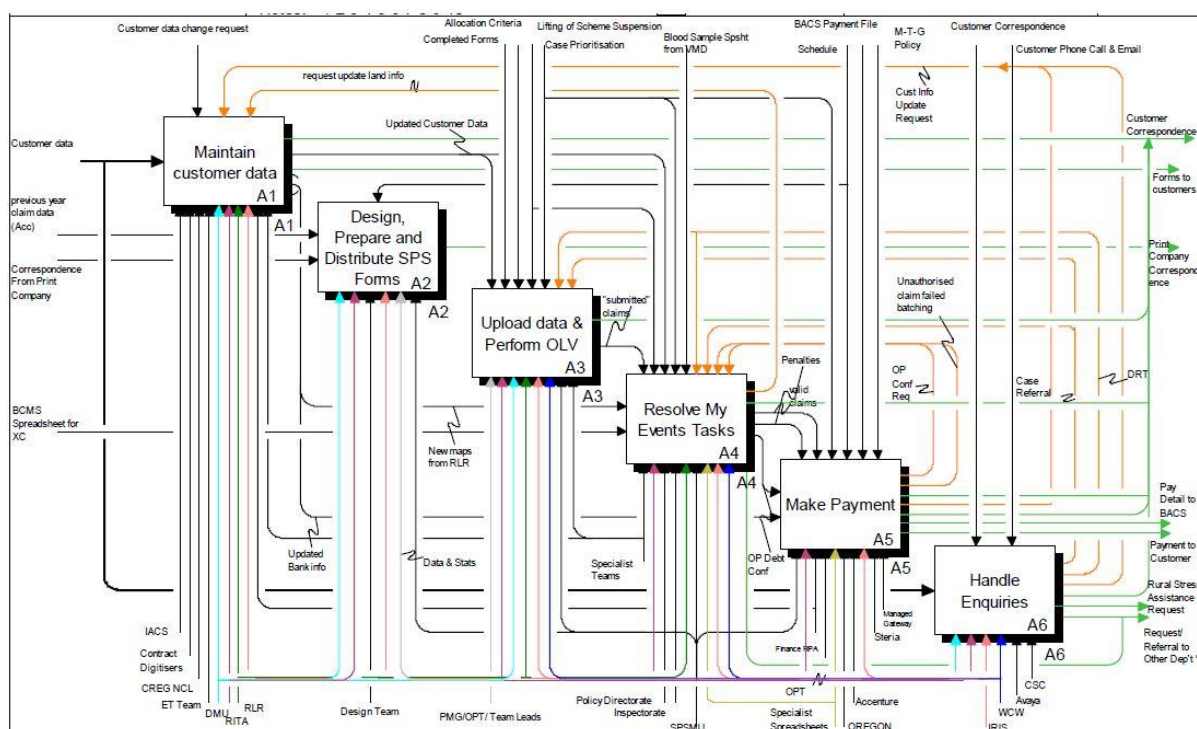
6.4.11 Interdependency

Interdependency describes the relationship between the functional units or tasks performed within a delivery system; whether or not the ability to act is dependent on the outputs or actions from other units/tasks.

Reflecting on the high-level SPS delivery system model (shown below in Image 6.5), the various activities in the treatment process could be seen as a line of sequential activities which used the output of previous activities. Using Thompson's (1967) labels, the SPS delivery system can be characterised as 'sequential interdependency'.

The standard flow, as reflected in the descriptions in earlier sections, was a series of tasks that were required to be done in sequence. In the case of specialist tasks, such as Commons processing and/or Entitlement Corrections (EC), the claim was diverted into specialist areas and then returned at the 'Make Payment' A5 sub-process.

Image 6.5 - High-level SPS Delivery System Model



However, there were occurrences where EC was triggered by adjustments to land parcel size discovered during normal treatment of claims. The WCW would divert the claim to EC. When the EC work was complete, the new set of

corrected entitlement data was sent to the WCW to continue the standard treatment of the claim. This action would fall under the description of 'Reciprocal' interdependency. The summary observation on Interdependency is provided here in Table 6.16.

Table 6.16 - Observed Interdependency in SPS

Construct	Observation	Evidence
Interdependency	Sequential Interdependency with minimal Reciprocal Interdependency	Interviews and models: - Process SPS claims (6 sites)

In this kind of relationship, two or more tasks have a two-way relationship where each uses the other's output (Thompson, 1967, *in* Donaldson, 2001). However, the loop of activity generally stopped after one cycle. This limited the amount of reciprocal interdependency to minimal levels.

6.5 Conclusions

The above observations led to the following set of conclusions about the SPS delivery system.

6.5.1 The organisation within the classification schemes

This section will place the SPS within the classification schemes described in the review of the literature and the presentation of the conceptual framework. To start, observations on the 4Vs (the dimensions of volume, variety, variation, and visibility) for the delivery system are needed. These can be described from the mandate and rules governing claims processing.

Volume for the delivery system in this case is high at 106,000 claims for the year 2008, on which this research focuses. This observation is drawn from a comparison to a lawyer/solicitor. Both require: information-centric inputs from the customer; a highly-skilled worker to review that information within the context of the law; an information-centric output for the customer which conforms to legal requirements. By comparison, the SPS faces a much higher level of volume from claimants.

The output variety was very low. The mandate states that claimants were entitled only to payment for eligible land. No other outputs besides payment or denial of a claim were offered to claimants.

The variation of demand for the process was high across a year, with the entire body of claims arriving on a single date. However, the variation was known and very predictable for scheduling purposes. The rules governing the process determined the arrival date of new claims, and claims cannot be submitted at any other time. As a result, the entire body of claims arrived predictably within a known time-window.

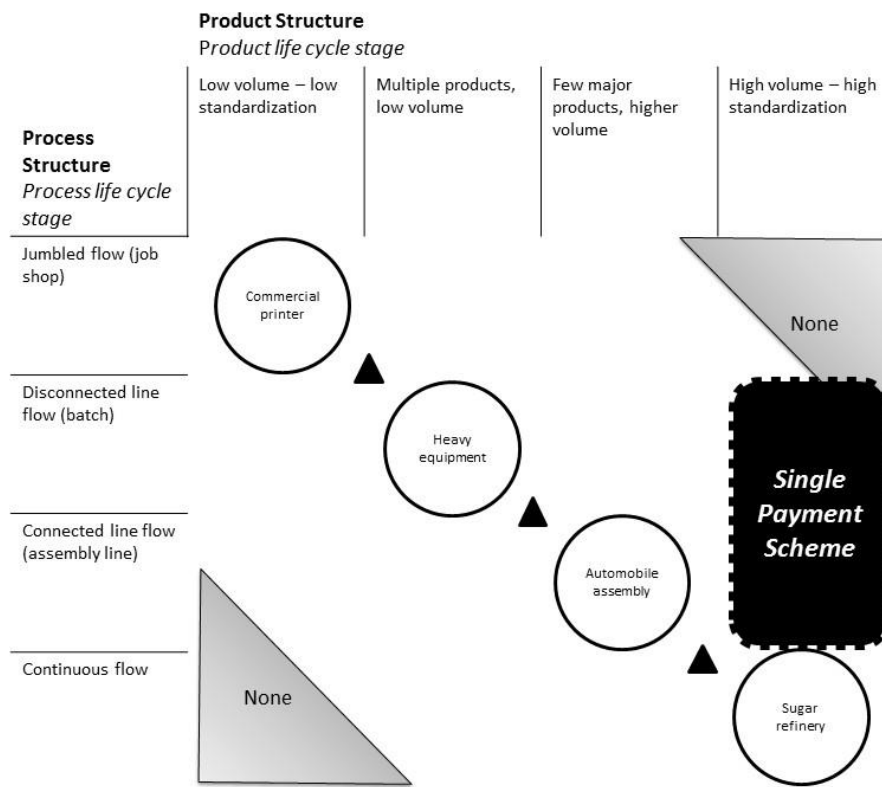
Visibility of the process was low; performed in regional offices not open to claimants. Apart from inspections performed on the claimed land and the possibility of contact prompted by questions from workers requiring claimant input, claimants had no visibility into the claims treatment process.

The process structure, as described above, bears significant resemblance to 'connected line flow/assembly line' approach (Hayes & Wheelwright, 1979). This is evidenced by the sequential nature of the process of claim treatment illustrated in the representative models in section 6.3.2 above. However, observations on work performed in Commons, Entitlement Corrections, Overpayments, and Finance provide evidence of batch work performed for a section of the claim population. This places the process structure within the 'disconnected line flow/batch' categories (Hayes & Wheelwright, 1979). This is evidence that the SPS spans both categories during its operations.

By using the above characteristics of the SPS, the delivery system can be placed on the focal classification schemes from the literature (see

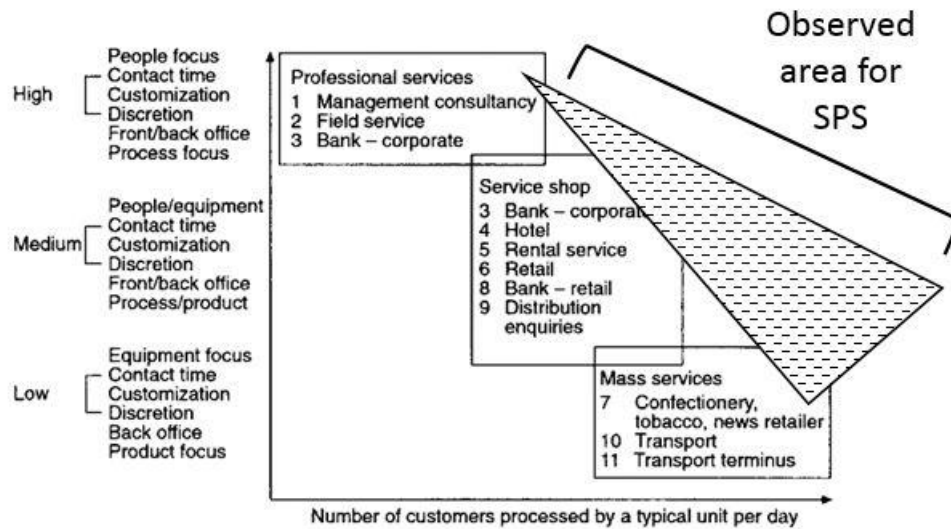
Figure 6.12, below).

Figure 6.12 - SPS within the Hayes & Wheelwright (1979) Product-Process matrix



Placing the SPS on the Silvestro *et al* (1992) classification scheme produces similar results, transcending the borders of the scheme's archetypes. Here, the collection of characteristics show all three levels of customisation/standardisation with a heavier emphasis on the lower end of the vertical axis. There were points of significant customisation observed for large, complicated claims and for those claims involved in entitlement correction work; this stretches the SPS into the higher customisation/lower volume area of the classification scheme. This is illustrated here in Figure 6.13.

Figure 6.13 – SPS placed on the Silvestro *et al* (1992) classification scheme



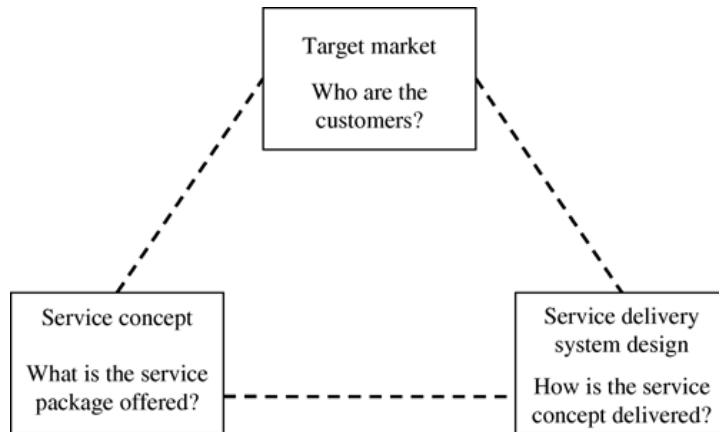
Source: Silvestro *et al.* (1992)

This configuration presents a misalignment between the espoused goals of high levels of efficiency through rigid processes; and the observed performance of the delivery system which exhibits characteristics of customisation work. The expectation for this delivery system, based on the volume-variety observations, would be that of standardisation and efficiency associated with Mass Services. However, the actual observed delivery system exhibits characteristics of all three archetypes.

6.5.2 SPS in the Service Strategy Triad

From the analysis of the literature on delivery system design, we recall the Service Strategy Triad (SST) (Roth & Menor, 2003). The SST emphasises alignment between the delivery system, target market, and the service concept to achieve optimal performance for the organisation. This is presented again here in Figure 6.14, below.

Figure 6.14 – The Service Strategy Triad (Roth & Menor, 2003)



The alignment model emphasises that if any of the elements change, then the others must undergo a reactive adjustment. When synthesised with the case information, the model can be populated with case-based constructs relevant to this research.

The target market is defined by the organisation’s mandate. In this case, the target market is defined as farmers within the European Union engaged in a defined agricultural production (EC Reg. 1782EC, 2003; title 1, article 1). This is fixed, changeable only by amendment to the Regulation which requires parliamentary action by the European Community. These findings are summarised in Table 6.17.

Table 6.17 – Observations on Target Market for SPS

Construct	When established	Observed Evidence
Target Market	29 September 2003, two years prior to the first year of delivery.	European Community Regulation 1782 discusses this in: <ul style="list-style-type: none"> • Title 1, article 1; ‘Scope’. • Title 3, article 33; ‘Eligibility’.

The service concept is similarly tightly defined through the mandate which contains the general rules governing the process. Recalling that the service concept combines ‘*what*’ is being produced with the experiential ‘*how*’ it is to be delivered; the ‘*what*’ here consists of a payment, the experiential ‘*how*’ for the claimant is a process where information is submitted via a form and a final

decision is received by post. The mandate makes no mention of how the claimant is expected to ‘experience’ the claims process, remaining neutral to this aspect of the ‘how’ part of the service concept. These findings are summarised in Table 6.18.

Table 6.18 – Observations on Service Concept from SPS

Construct	When established	Observed Evidence
Service Concept	29 September 2003, two years prior to the first year of delivery.	<p>European Community Regulation 1782 discusses this in:</p> <ul style="list-style-type: none"> • Title 3, chapter 1 ‘<i>General Provisions</i>’ contains clear direction, establishment of rules throughout. • Title 3, chapter 3 ‘<i>Payment Entitlements</i>’ contains clear direction and rules on the various aspects of entitlements.

Both of these constructs were determined by the mandate before the establishment of the delivery system.

While the mandate is heavy with descriptive law which regulates the way a claim must be treated, the mandate makes minimal reference to the detail describing the required delivery system. The General Provisions from the mandate describe the need for “an integrated administration and control system” (EC Regulation 1782, EC, 2003; Title II, art. 17-21). This section outlines the required base-level information technologies for SPS; specifically describing what data set each IT system should be able to manage. The language in these sections clearly avoids any further description of how this was to be done. This observation is summarised in Table 6.19.

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Table 6.19 – Observations on the Delivery System in the SPS

Construct	When established	Observed Evidence
Delivery System	Partially: 29 September 2003, two years prior to the first year of delivery.	European Community Regulation 1782 discusses this in: <ul style="list-style-type: none"> Title 2, chapter 4, articles 17-21 '<i>Integrated Administration and Control System</i>' contains detail on the mechanism required to manage SPS data.
	Finally established after the Mandate, but before the first year of delivery.	Public Accounts Committee, September 2007: "The Delays in Administering the 2005 Single Payment Scheme in England", HC893.

The delivery system was created after the delivery of the mandate to the UK government. The task of establishing a delivery system was left to a panel of government officials, civil servants, IT consultants, and the National Farmers Union (Public Accounts Committee HC893, 2006).

This data shows that two of the three components of the Service Strategy Triad were, and remained, fixed. The delivery system was designed and implemented to accommodate the other two elements. There was no possibility of adjustments for alignment from the two other elements of the triad. This appears to be a scenario unexplored in the extant literature, and will be described in further detail later in the '*Discussion*' chapter.

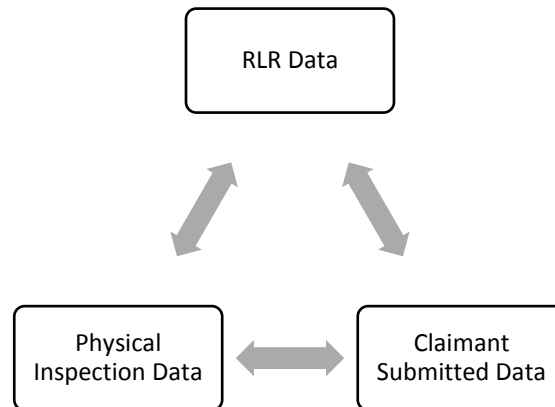
6.5.3 Accuracy/Efficiency observations

As observed above, the aspirational level of accuracy of the delivery system was high. The process of ensuring accuracy required analysis of land data from three separate sources: the claimant submitted data, the RLR data, and the data gathered from inspections.

If an inspection was performed during that claim year, all three sets of land parcel data were required to be in alignment before the claim could be valued. In the absence of inspection data, only the RLR and claim data had to align.

While the relevant data was out of alignment, the IT system would not allow the claim to proceed to the next stages of treatment. A model of the alignment concept is represented in Figure 6.15 below.

Figure 6.15 - Land Parcel Data Alignment Model



Where a discrepancy existed, an error would be raised in RITA and the claim would be placed in a work queue in the My Events stage of the treatment process. All errors had to be treated and closed in order for the claim to progress.

This high level of accuracy was required to co-exist along with the observed demand for high levels of efficiency. This relationship appeared to be fundamentally conflicted. The high accuracy levels led to the delivery system having the purpose of actively seeking errors in land size and use, using very precise measurements. This level of accuracy produced a high volume of errors for resolution because discrepancies were easily generated. This clearly resulted in high volume of work, which countered the desired efficiency in the delivery system.

The accuracy/efficiency trade-off in the case of the SPS requires further consideration when compared to the classification of the delivery system. In Section 6.5.1, the SPS was described as having high volumes and high levels of standardisation. Such delivery systems have been shown to achieve higher levels of efficiency when implementing the characteristics of rigid delivery systems. This requires consistent, low-variety inputs for a highly-automated transformation. A highly-automated delivery system loses efficiency when the transformation requires intervention by workers.

However, as described in the previous section, a great deal of intervention was required in this delivery system. Land-based data errors on a claim were raised whenever any of the three data sources adjusted the land parcel data. Thus, accuracy adjustments to the RLR would create alignment errors; as would inspections performed on a claim's land parcels. Ironically, this meant that improvements to the accuracy of either of these two sources would lead to significant inefficiency by generation of rework.

6.5.4 Postponement

The observations on postponement show that the point of customisation occurs at the A2 activity. At this step, pre-populated claim information is used to create a customised claim form to be sent to each returning claimant. When one considers that the A1 activity consists of ongoing data maintenance, occurring continuously across claim years, then the A2 activity is the first step of the flow of activities in any single claim year.

There can be no earlier point of customisation in the overall delivery system. Interviews showed that this customisation activity was undertaken in order to reduce the potential for customer-based input errors; and that submitting an unchanged/unaltered pre-populated claim form gave the claimant the highest chance of a swift treatment process. This quality assurance action was clearly customisation for each unique claimant which occurred at the earliest point in service delivery. As a result, there is no evidence of the use of Postponement techniques in the SPS delivery system.

6.5.5 Interdependency

The observations on interdependency appear to align with the design strategy for the delivery system. Sequential dependency follows the same principles linked to the assembly-line approach. As this delivery system exhibits high standardisation, it follows that the interdependencies between the tasks are repetitive and less differentiated. Evidence from the case showed that minimising the reciprocal dependencies encourages flow through the process. These observations also align to the positions from Larsson & Bowen (1989)

that describe the relationship between interdependency and the level of standardisation in a delivery system.

6.5.6 Interrelation

The phenomenon identified here as 'Interrelation' emerged from the research as a significant factor on claim treatment. It was observed that during the course of processing that a claim could be linked to any number of other claims as a result of land boundary disputes or by shared entitlements; this connection is 'interrelation'. First, a description will be provided of interrelation created by land boundary disputes. This will be followed by a description of interrelation created by shared entitlements.

During the course of the observations of the treatment of claims in the My Events stage of activity, one of the events which required resolution was a parcel boundary error. In these cases, the error was created by the overlap of the boundary between two adjoining parcels of land; two applicants claimed the same land. This error raised a task in the IT system which required resolution before the claim could advance to subsequent stages.

Because these errors were discovered in the My Events stages, the treatment of these errors began with the WCW. The WCW checked the claim data, which consisted of both maps and claim form data, and compared them to the Rural Land Register (RLR). The RLR was considered to be the trusted source. The submitted claims that did not comply with the RLR were considered to be in error. The claimant was contacted by the WCW to discuss the potential error. The claimant then had two choices, accept that the claim was in error and have the claim data adjusted; or dispute the decision and submit further evidence to have the RLR adjusted.

The most accurate means of determining the accuracy of the disputed land parcel was to perform a physical inspection. A member of the Inspectorate would be assigned to the task of performing a survey to determine the actual land boundaries and report the results back to the WCW. The WCW would then resolve the My Events tasks associated with each of the claims involved in

interrelated border data dispute. This would bring all three data sources into alignment, allowing the claim to progress.

The claims involved in the interrelation could not be processed to completion until the results of the inspection were received and all the questions regarding the borders involved in the dispute were answered. Any claims that were processed to completion before the inspection were subject to adjustment if the border dispute affected data in that claim. Adjustments to the affected claim would then prompt errors as a result of data misalignment described in 6.5.3 above. While the organisation did not keep records of how often boundary disputes occurred among the body of claims, interviews in each of the standard SPS claims treatment processes, both Commons processes, Physical Inspection, and Entitlement Corrections revealed that boundary disputes were considered business-as-usual events in the frequency in which they appeared.

The creation of interrelation between claims stemming from entitlements was far more prevalent, and had the potential to be much more complicated. Land disputes generally involved a smaller number of claimants because the dispute was limited to the number of adjoining claimants. However, in the case of interrelation created by entitlement trading, the number of interrelated claims had the potential to be significantly higher.

Interrelation created through the division and trading of entitlements stemmed from the final scenario which will be described in the proceeding section. When entitlements are divided and traded, any adjustment to the entitlement would then affect the valuation of the claims on which that entitlement was used by subsequent owners. The rules allowed for further subdivision of entitlements, thus adding further complication by increasing the number of claims involved in valuation changes after entitlements were adjusted.

6.5.7 Multi-year corrections

The requirement to achieve accuracy was not limited to the single current claim cycle. The rules governing SPS also demanded that changes be made back to the correct date. This would result in an adjustment of the claimant's account

balance to account for the added/subtracted eligible land value for the claims submitted back to the correct date.

The adjustment had the potential of affecting the related entitlements as well. As described above, entitlements were linked directly to the land claimed in the first year of the payment scheme. Thus, if the size of a parcel of land was found to be incorrect dating back to the first year of the scheme, the entitlement would also have to be adjusted accordingly. If the entitlement had been sold by the original owner, any subsequent owner would face the above-mentioned adjustment for all the years the disputed entitlement was used on any claim.

A slightly more complex scenario was also possible, which existed when an entitlement was divided and sold. If the original land parcel, to which that divided entitlement was linked, was determined to require adjustment then each owner of the subdivided fraction of the entitlement would face the relative proportionate adjustment of their valuation. For example, an entitlement was divided into quarters and sold. Later, an analysis of the pre-divided entitlement determines that the parcel of land to which it relates had a feature (pond, building, etc.) which should not have been included in the original establishment of the entitlement. Each of the new owners of the divided entitlement would then face a proportional reduction in value. This proportionate reduction would have applied for each year the entitlement was used.

Interview subjects stated that adjusting the value of entitlements became significantly more difficult in those situations when a claimant is active in trading entitlements. The claimant may have bought and sold many entitlements that were later adjusted, which could result in multiple debits and credits to the same claimant account over several years. This made it difficult to determine an accurate valuation for such an account at any given time, as entitlements could be adjusted at any point in the claim cycle.

These observations show that the emergent phenomenon of interrelation due to the presence of entitlements; the ability for the claimant to divide and trade their entitlements; and the subsequent work the organisation must perform in order to accurately adjust entitlements and related claim values, was observed to

have significant impact on the resource consumption in the SPS delivery system.

6.5.8 Characteristics of the SPS Delivery System

This section presents conclusions drawn from the observations listed above for each of the focal characteristics in the delivery system. The set of focal characteristics is presented in Table 6.20.

Table 6.20 – Observations on the Delivery System Design Characteristics in the SPS

Characteristic	Description	Observation
Degree of Employee Discretion	The rigorous adherence to a standard process also influenced the degree of employee discretion, keeping it very low. For decision-making points in the process, there was a similarly low level of discretion as all decisions were required to follow strict decision-making guidelines. Inputs were required to be highly accurate, which also limited the employee's discretion in adjusting claim treatment.	Low
Worker Skill Level	Low skilled workers were found in the areas of the process which dealt with highly routinised work.	Low
	Medium skill levels were found in exception routines which were tasked with solving problems with claim processing. When a claim exhibited characteristics which forced it from the standard process, the more highly-skilled workers were required to understand why those characteristics were created and how to move the claim through the delivery system.	Medium & High Varies by Role
Degree of Automation	The degree of automation was high. Significant evidence of automation was present across the delivery system, but the attempts at automation were left short of covering the entire claim treatment process. Off-system work was required for the largest, most complicated, resource consuming claims.	High

Characteristic	Description	Observation
FO/BO Configuration	<p>The delivery system was intended to maintain a split between the front-office and the back-office, which would render delivery system location decisions and choices unimportant. The system was designed to rely heavily on the use of correspondence by post, which would support the FO/BO split.</p> <p>Facilities were found in six locations, not evenly geographically distributed, not distributed to match areas of demand.</p>	Highly separated
Degree of Routinisation	<p>Customer contact was extremely limited. Contact was limited to telephone and postal communication. Contact between claimants and worker was only openly offered at the submission stage.</p> <p>Contact observed in physical inspections, but no input from the claimant was received; only data from inspecting the land parcels was collected.</p> <p>Customers were not observed being involved in any transformational activities at any point.</p> <p>All claims went through a set of standardised processes. No other methods of treating claims were observed. The very large, very complex claims which were treated outside the IT system were still treated using the standard process. WCW and specialist workers were not permitted to use any other treatment process other than what was in-place.</p> <p>This summative position from the above-described collection of characteristics describes the delivery system as highly rigid.</p>	Highly rigid
Batching Techniques	Fully treated claims held in batches and paid together to increase wider organisational efficiency.	Batching present, limited use

Characteristic	Description	Observation
Postponement	The earliest point of customisation was found to be at the earliest stages of the SPS delivery system, not the latest stages as recommended in the postponement literature. The intent of the customisation was to increase the quality of the data contained on the claim, decreasing the chance of errors.	No evidence of Postponement

6.6 Summary

The characteristics exhibited by the observed delivery system largely appear to exhibit the recommended design characteristics to achieve optimal performance of a ‘mass service’ or ‘assembly line’ approach to delivery systems, as found in the literature. The mandate of the organisation requires the delivery of a high volume of claims. Standardisation is high; claims are all received on the same claim forms and in the same format, which attenuates the variety of inputs. The delivery system offers low variety in potential outputs: a rejected claim; a payment from a valid claim with a completed valuation. The variation of the process was high across the time span of a year, but the variation was known and predictable. This predictable variation was due to an enforced deadline for the submission of the entire body of claims.

In the Hayes & Wheelwright ‘*Product-Process*’ matrix (1979), the classification of this kind of delivery system was described as a high volume-high standardisation product; connected line flow process structure. However, despite the alignment to the recommended design presented in the extant literature, the delivery system was clearly not achieving optimal performance. This observation raised the following questions:

- What contextual phenomena can be contributing to the sub-optimal performance?
- Where is the research theory failing to inform design in this domain?

The presence of claim data interrelation created significant work for the SPS in the attempts to clarify the actual accurate representation of the both the land data and the related entitlement data. The large number of claims entwined by entitlement trading added increasing levels of complication. This complication was further exacerbated by the need for accuracy in past claim years, stemming from adjustments to entitlements and land size. The emergence of claim data interrelation identified by this research, is clearly an important phenomenon affecting both the accuracy and efficiency measures associated with this delivery system.

The high degree of automation employed to manage the flow of the delivery system complies with extant knowledge in the OM literature. However, the implementation of the system fell short of being complete in covering the entire process. There was a noticeable interruption where the claims management system, RITA, stopped just short of the finance processes which managed the balance of claimant accounts; collected money from accounts in debt; and made payments to claims in credit. High levels of automation existed in the delivery system, but not for the very large claims; these were managed outside the IT system.

The IT system was intended to provide higher levels of automation, and therefore higher levels of efficiency. However, the largest percentage of organisational resource consumption was linked to resolving claim errors generated by the IT system.

These errors are generated when the IT system reconciles land data from the RLR with the data provided by the claimant or via an inspection. The research observed the combination of high levels of accuracy, high levels of automation, and interrelation which led to a reinforcing cycle of error discovery, adjustment, entitlement correction, error discovery, adjustment, and so on.

It could not be determined if the incompleteness of the IT system was further contributing to the inefficiency of the delivery system; and if so, to what degree it may have contributed to inefficiency.

The actual efficiency generated by the IT system was placed in question. This put the IT system under further scrutiny. The primary issue was that the majority of organisational resource consumption was a result of the IT system intended to enhance efficiency. If one considers the emphasis from the respective literatures placed on the supporting role of IT systems in efficient delivery, then the observations of the delivery system structure point logically to further examination of the IT systems in use.

It was determined that further exploration into the nature of the errors generated by the IT system was required. Such an exploration would aid in determining if the IT system was contributing to inefficiency, or if factors outside the IT system were contributors. Similarly, further exploration in this context would assist in making observations on the applicability of theory in this domain. This further exploration would aid in addressing the questions from earlier in this section about sub-optimal performance of the delivery system by providing a clearer representation of the phenomena which appear in Mass Claims Processes.

Recalling the research question at the centre of this thesis: “*what are the delivery system design characteristics of information-centric Mass Claims Processes?*”; the following section examines the emphasised characteristics of automation and highly rigid delivery system design. The focus will be placed on the IT systems used to facilitate claim processing; and attention will be given to the creation and resolution of errors which consumed the majority of the organisation’s expended resources.

7 SPS Phase Two – Relationship between errors and automation

The previous chapter revealed that the IT systems supporting automation in the highly rigid delivery system were potentially contributing to sub-optimal performance. This second phase of research explores the problematic areas of performance, paying particular attention to the information technology used within the delivery system.

The first Section, 7.1, presents an overview of the multiple IT systems used within the SPS delivery system. The integration of the various systems will be illustrated with data collected from the organisation.

This overview is followed in Section 7.2 by the description of the investigation on the inefficiency in the IT systems. This section contains description of the tools and analytical frameworks in focus.

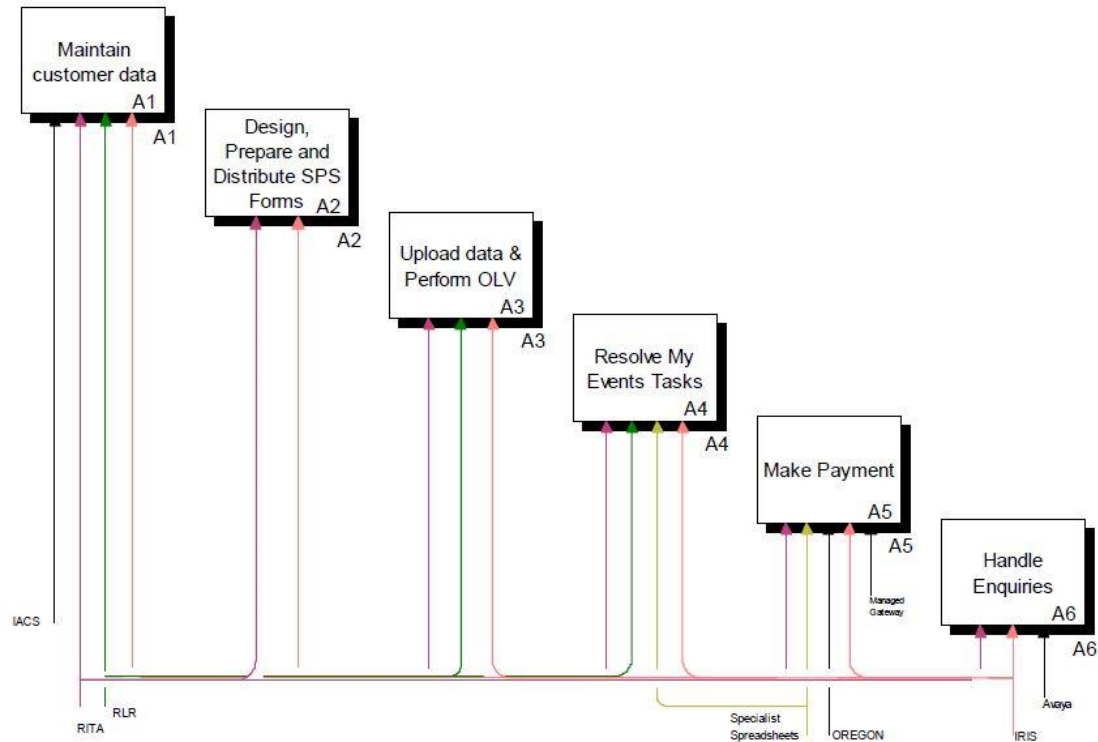
Section 7.3 presents the data generated from an expert panel review of the potential causes of underperformance for the sample of claims. Conclusions drawn from the data are presented in Section 7.4.

7.1 Overview of the various systems across the delivery system

The primary IT system, RITA, was designed to manage the flow of claims through the entirety of the delivery system. However, as previously discussed, RITA stopped short of spanning the full delivery system by failing to manage claims through the end stages of the process, which included finance activities. It was also discussed that several of the specialist activities such as Entitlement Corrections, Commons, and Physical Inspection used technological tools designed to operate outside RITA. This section will illustrate where those tools were employed and the purpose they served. This will clearly present the level of automation in the delivery system.

The exercise of creating IDEF₀ models of the SPS delivery system included the creation of models of the IT systems in place. The integration of the IT systems across the delivery systems can be shown on the high-level model, presented below in Image 7.1.

Image 7.1 – SPS delivery system with IT systems isolated



Each of the mechanisms shown in the image is described in Table 7.1 below.

Table 7.1 – IT systems used in SPS and their purpose

Tool name	Where found	Purpose
IACS Integrated Administration & Control System	A1	This IT system existed prior to SPS; it contained historic data about claimants and their past land use. Used in SPS to access historical data about past claims for each claimant.
RITA RPA Information Technology Application	A1, A2, A3, A4, A5, A6	The mechanism where the main transformation activity was performed. This system held data on land parcel size, use, and related entitlements. This data was used in the payment calculation, which was also performed in this IT system. Information on the transactional history of the claim, and all interaction with the claimant was also held in RITA.
RLR Rural Land Register	A1, A3, A4	Digital storage of maps; contained imagery, measurements, and locations of all parcels in SPS.

OREGON	A5	The IT system owned by the Finance department used to manage their workflow and related data. Claimant credit/debit status was held in this system. Received claim valuation data from RITA via the Managed Gateway.
Managed Gateway	A5	The mediating IT system built to take valuation data from RITA and convert it into a format usable by OREGON.
IRIS Integrated Rural Information System	A1, A2, A3, A4, A5, A6	The claims management system in place prior to the installation of RITA. This contained data on land parcels, land use, maps, and customer/business related information. IRIS was used to check claim and claimant data against past years to ensure consistency.
Avaya	A6	Managed the incoming flow of calls at the Customer Services Centre in Workington. Not a claims processing system.

Observations made during the model creation interviews revealed a series of work tools which were used outside of RITA in order to manage workflow within the specialist activities. Additionally, there were instances where checklists were used by WCWs in order to ensure completeness in the standard treatment of claims. Interviews with WCWs in Northallerton and Exeter revealed that the workers in those areas did not have confidence in RITA's calculations, nor did they believe that RITA had the capability to perform all the work processes required. They preferred to use their own tools to ensure thorough completion. These external tools are reflected in the model above as '*Specialist Spreadsheets*'; these existed independently outside of RITA.

Spreadsheets were used for two purposes, valuation and storage of details of completed work. The valuation work was performed in spreadsheets for the same reasons detailed above. As well as uncertainty of accuracy in processing claims, workers in specialist areas claimed that RITA was not fully functional for the specialist work they performed. For Entitlement Corrections (EC) work, the function the spreadsheet provided had been recently added to RITA in an upgrade called '*Epsilon*' (source: EC – Exeter interview). However, a series of

failures in the early days of use meant that the EC teams continued to use spreadsheets while the further testing of Epsilon continued. One of the consequences of the inability of RITA to manage EC work was the continued need for higher-skilled workers to complete the activity. Epsilon was intended to turn higher-discretion work requiring higher-skilled workers, into low-discretion work requiring lower-skilled workers.

Spreadsheets also acted as a storage mechanism for process outputs. Teams generally shared a single spreadsheet, updating it with daily completed work. The teams felt that the use of externally stored spreadsheets ensured the integrity of the data from any potential corruption (source: Commons NA & EXE interviews). Again, this was a feeling of distrust in RITA and how it managed data. These off-system tools appeared to generate unnecessary work in the repetitive transfer of data to- and from RITA.

The existence of these various systems indirectly supported the proposition that RITA was not performing optimally, and that any existence of an external tool caused delays in the progression of claims through the SPS delivery system. Additionally, data transfer from RITA to specialist external tools, then back to RITA after the completion of the specialist work opened up the possibility of data transfer errors. This effort could clearly be considered inefficient due to need to perform data quality checks such as the '*Mind-the-Gap*' program, which monitored payment values before and after the passage through the Managed Gateway (source: Finance – Reading interview). This sort of quality check is unnecessary if RITA was performing as intended, thus consuming organisational resource unnecessarily.

These inefficiencies linked to the IT-system prompted further investigation into the relationship between claim errors and RITA. It was hoped that further investigation would lead to better understanding of the nature of the inefficiencies. By understanding the nature of the problems, the overall 'fitness-for-purpose' of RITA in facilitating the treatment of claims in SPS would be further illuminated. This determination would then inform observations on the overall ability for technology to support MCPs in this context.

7.2 IT System Inefficiency Analysis

The questions about the fitness-for-purpose of the main IT system as part of the SPS delivery system were centred on the timeliness, efficiency, and accuracy in the completion of claims. Approximately 20% of the claims took an unacceptably long time to complete and consumed high levels of resource, while a separate set of claims were unable to be valued with complete confidence in the final figure (source: Internal restricted document: '*RITA Fit for Purpose Review*'). According to interviews, claims in this second group (internally referred to as the '*Tail*') were finally valued by the best estimation workers could provide (source: EC team, OPT, and SPSMU interviews). The reliance on an estimation clearly violated the accuracy parameters set in the rules.

The workers needed to produce highly accurate valuations contradicted the optimal design characteristics for the SPS' intended delivery system. For archetypical 'connected line flow' delivery systems such as the SPS, the delivery system design literature advises the use of less-expensive, lower-skilled workers with low levels of discretion. The delivery system observed for the treatment of 'Tail' claims did not exhibit these recommended characteristics. This is an observed misalignment between the delivery system and the service concept in place in the organisation. This will be discussed in the summary of this chapter.

Inaccurate valuations produced by estimation of claim values in past years had already cost the organisation. The European Community (EC) levied fines against SPS for such violations (House of Commons - PAC, 2006), and would face further fines for continued inaccurate valuations, or for exceeding the maximum time allowed for claim treatment.

The causes of these delays, inaccurate valuations, and inefficiencies in claim resolution remained unclear after Phase 1 of this research.

In order to further understand the nature of these problems, an in-depth review of problematic claims from the most recent previous year was undertaken. First, the three error categories (inaccurate, inefficient, or late) were defined

based on the metrics used by stakeholders to measure optimal performance. The claim population was then searched to find a sample of claims in these error categories. The sample of claims would then be subject to a thorough review by specialist workers and a panel of experts from multiple areas of the organisation. The goal of this exercise was to generate a view from the panel on the nature of the source of these errors. The outcome of the review would then inform observations on the larger question; the ability of automation to support the goals of the delivery system.

The most recently completed claim year was used. It was important the claims were completed so that the final status of individual claims could be considered as part of the analysis. Claims were examined based on anomalies during the treatment process. Using previously established boundaries of the treatment process, the process was defined as the point where the claim is received by the organisation (reflected as the A3 sub-process in the process models in Image 7.1, above) to the point where the claim is placed in the OREGON system for payment (in the A5 sub-process).

A team of researchers and organisational representatives performed an initial analysis of 'inefficient' or 'inaccurate' work, and 'timeliness' in the treatment of claims. The team consisted of:

- Researchers from the University of Exeter
- Specialist external consultants with experience of the SPS, hired by the organisation
- Members of Internal Audit, the organisation's oversight department

The team first sought to establish a definition of what was 'accurate' and what was 'efficient' for the SPS delivery system; while 'timeliness', an objective measure, needed no such establishing definition. The final payment date was set in the rules governing the process, any payment made after that date violated the rules.

7.2.1 Error Categories – Timeliness, Accuracy & Efficiency

Payment accuracy for the SPS delivery system was an elusive concept. To ensure accuracy in valuations, adjustments to valuation were required

whenever new, relevant data was presented. A claim may have been processed to completion in given claim year and considered to be accurate. However, if an inspection is performed and the land boundary related to the completed claim is adjusted, the completed claim's valuation becomes inaccurate. Payment adjustments were then necessary.

In order to avoid potential confusion with this perceived shift in accuracy, a meta-metric was used: 'is the claim treatment process paying the *right* amount?' This was measured by the number of payments made to a claimant. Accuracy could then be defined as the action of making a single payment to a claimant. If one considers that the delivery system intends to deliver the customer's requested output, then the 'single payment' measure is a justifiable measure of the delivery system's capability to deliver that requested output to the desired levels of accuracy.

Efficiency in processing was earlier described as an organisational measurement of cost per claim. This measurement is grounded in the cost of the resources employed to process the claim. In the case of the SPS delivery system, cost is comprised primarily of IT systems and effort in man-hours. IT systems were a fixed annual cost to the organisation (House of Commons - PAC, 2006) which leaves man-hours as the independent variable.

The organisation had no measurements in place to directly track the amount of effort in man-hours required to treat individual claims to completion. However, effort could be indirectly measured through two claim metrics recorded on the IT system: claim versions and interactions.

'Interactions' were shown to be any worker interaction with a claim, such as:

- Completing 'tasks'
- Clearing 'holds', where a claim is held for a specific kind of check by the WCW
- Completing the correction of online validation errors
- Adjustments of land parcel size or use.

When these interactions took place, RITA kept a logged record of the changes. These could be counted; they were discrete events linked to the claim.

A claim 'version' was considered to be similar to that of the use of the term 'version' in the development of software. If a program's code is adjusted, the program's version number is increased so the latest version can be easily identified. In the case of claims in RITA, whenever a claim was opened by the worker, the worker had the options of simply saving changes and closing the claim file or closing and submitting the claim to RITA for valuation. The latter process changed the claim's version number so that any worker could easily identify the most recent version, and so that a record of the changes could be kept.

Work was assumed to have occurred by evidence of a claim having been 'submitted' in RITA. The review panel hypothesised that as the claim version increased, the amount of effort expended on the claim would similarly increase as the worker resolved errors associated with the claim. The analysis was expected to support the assertion that work would be proportionate to the number of interactions with a claim. Thus a high version number for a claim would correlate to high levels of corrected errors for that claim.

The above analysis performed by the investigating team produced the following set of error-states:

- Inaccuracy – claim payments were not accurate, as described by:
 - the presence of multiple payments on the same claim
- Inefficiency – claims that required high levels of effort; as described by:
 - high versions and/or high interactions
- Timeliness – claims paid late, as described by:
 - payments made after the payment deadline as described in the rules
 - membership in 'the Tail' group (as described in Section 7.2 above).

This error definitions could then be used to interrogate the claim population to identify and investigate problematic claims.

7.2.2 Application of the categories to the claim population

The above-described characteristics were used to analyse the entire population of claims from the completed 2008 claim year. Once identified, the problematic claims were further analysed. Upon inspection, little correlation was discovered between the number of claim versions and the number of interactions.

- Approximately 6% of claims had over 20 version changes and fewer than 20 interactions.
- Approximately 5% of claims were observed with low version changes, but had more than 20 interactions.

The initial analysis of these figures rejected the hypothesis that the version number would increase in proportion to the tasks completed.

Members of the SPS Operations Team (OPT) could not explain this occurrence and agreed that claims with these characteristics were inconsistent with the majority of claims processes; indicating potentially unnecessary work in processing.

In regards to claims with late and/or multiple payments, the interrogation of the data revealed little separation between the two characteristics. Nearly all of the claims receiving late payments were paid multiple times. Only a very small set received a single payment after the payment deadline passed. Because of the high correlation of occurrence of late and/or multiple payments in the same claim, the investigating team decided to conflate the two categories for the next stage of investigation.

This led to the final set of categories:

- Claims with late and/or multiple payments (*Inaccurate*)
- Inefficient work (*Inefficient*)
- Claims in 'the Tail' (*Not Timely*)

Once these error conditions were defined, a sample of claims from each category for that claim year could be selected for further investigation by the expert panel. The categories were not mutually exclusive.

7.2.3 Expert Panel Review

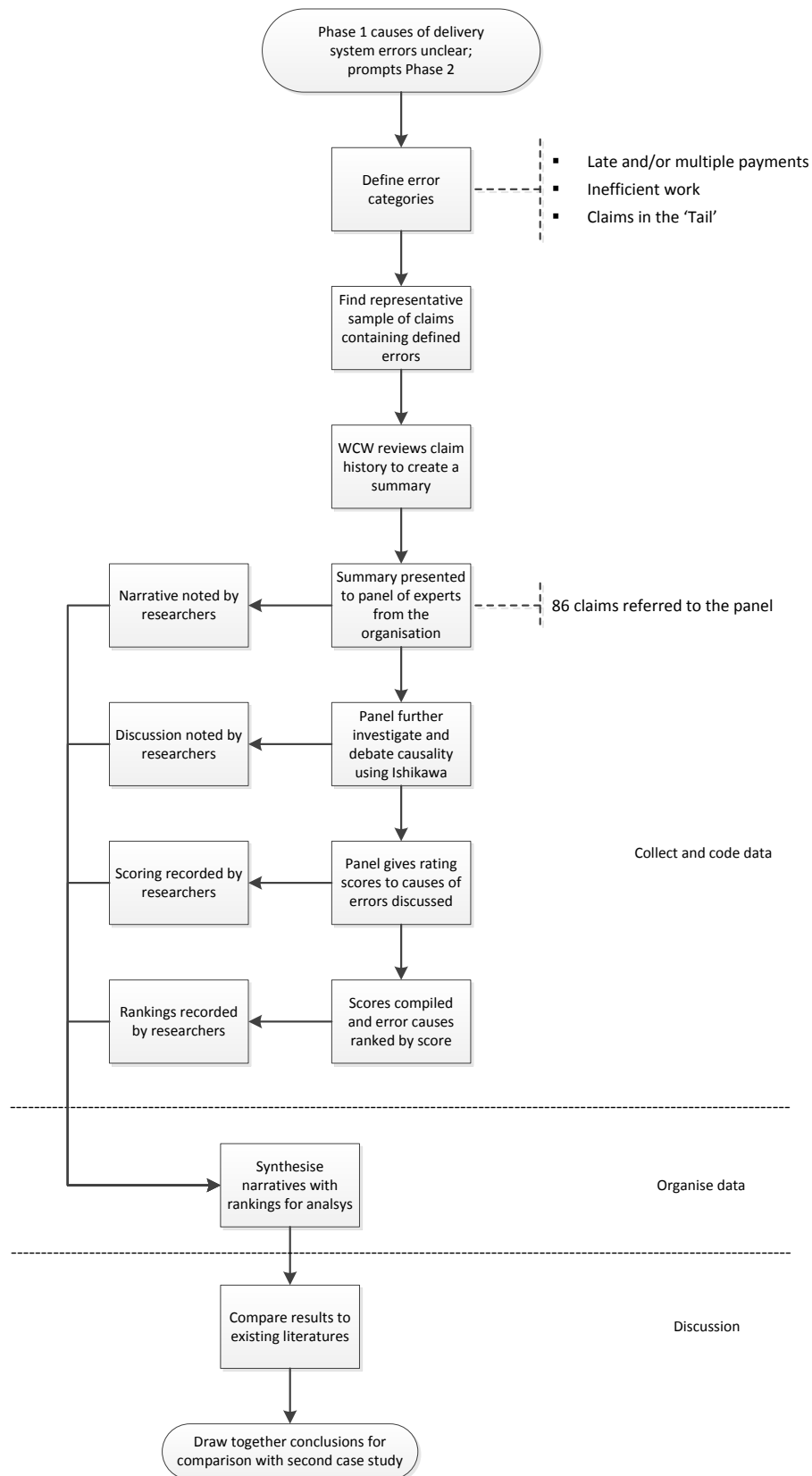
The expert panel review took place over four days, requiring the investigation of a large enough sample to reach generalizable conclusions. To ensure the highest volume of cases were reviewed within the given time period, a multi-stage process of review was put in place. The separate review stages are further described below in Section 7.2.3.4.

7.2.3.1 Phase 2 Research Process Diagram

The approach to data collection will be described fully below. The research process is presented on the following page in

Figure 7.1 on the following page for ease of reference.

Figure 7.1 – Phase 2 Research Process Diagram



7.2.3.2 Case selection

As described in the diagram above, the cases for panel review were initially selected as a result of membership in one of the error categories. From the pool of potential cases, individual cases within each error category were chosen from a list of cases by workers from the organisation without prior knowledge of the contents or history of the claim. The worker reviewed and summarised the case, then referred the case. A total of 86 claims were referred to the panel for review. The number of claims from each category is proportionately representative of the occurrence of that error in the population. For example, late/multiple payments had three times as many instances than tail cases, so the review considered three times as many late/multiple payments. The breakdown of the number of claims from each error category is shown in Table 7.2 below.

Table 7.2 - Composition of Sample for Panel Review

Error Category	Cases Selected for Review
Late/multiple payments	36
Inefficient work	39
Tail cases	11
Total claims	86

7.2.3.3 Creation of the Ishikawa Diagram

The panel was given an Ishikawa diagram to perform the analysis; a tool with longstanding use in quality assurance to determine the cause(s) of a quality failure (Slack *et al*, 2013). This approach historically uses four categories in order to discern the nature of an error: machines, materials, manpower, and methods. However, it was felt that these four categories were not the most appropriate for this exercise due to the material-centric manufacturing nature of the categories. The team of researchers, specialist consultants, and the members of internal audit conferred and agreed on new labels which covered

the known potential areas of error. The four adjusted general labels used in this exercise were: Process, Product, Organisation, and Policy.

The aim of selecting these four main themes was to provide coverage a breadth of coverage within the known domain (the organisation) and the delivery system, while maintaining focus enough to ascertain detail. This exploration aimed to determine: '*contribution towards creation of error*'. Details of each of the main areas from the Ishikawa Diagram are presented below in Table 7.3.

Table 7.3 – Ishikawa Diagram – Error Contributors

<u>Theme</u>	
First Level Error Contributors	Second level error contributors
<p>Policy – Level 1</p> <p>This main branch concerned the introduction and maintenance of the scheme within RPA.</p>	<p>1.1 - Interpretation of SPS and accreditation Legislation</p> <p>1.2 - RPA objectives; long term and tactical (designed to capture the potential role of management action in causing errors)</p> <p>1.3 - Translation of Policy (the way in which business requirements were formed and communicated to front line workers)</p> <p>1.4 - Interpretation of Policy by specific sites and specialisms (aiming to capture the effect of variation in which work was done locally)</p>
<p>Process – Level 2</p> <p>This branch was based on the IDEF modelling from the previous phase.</p>	<p>2.1 - Maintain Customer Data</p> <p>2.2 - Design Prepare and Distribute SPS forms</p> <p>2.3 - Upload Data</p> <p>2.4 - Perform OLV</p> <p>2.5 - Resolve My events Tasks</p> <p>2.6 - Make Payments</p> <p>2.7 - Handle Enquiries</p>

Theme

First Level Error Contributors

Second level error contributors

Organisation – Level 3

This branch addressed the issues of skill sets and the influence of Business Change Management and the influence of external stakeholders.

3.1 - WCW skills

3.2 - Specialist Skills

3.3 - External Stakeholders

3.4 - Business Change Management

Product – Level 4

This section covered IT systems and infrastructure, Data, and Business Products (procedures and training materials).

4.1 - RITA and associated systems

4.2 - Off RITA systems

4.3 - Business Products

4.4 – Data

The complete Ishikawa Diagram can be found in Appendix G.

7.2.3.4 Data collection

Each WCW on the review team was given a selection of cases for review and investigation. Using their higher levels of experience, the WCW examined the detailed case records for the particular claim to identify a contributor or combination of contributors which, in the opinion of the WCW, resulted in the claim being in the error category in 2008. The WCW then presented their analysis to the expert panel for the next level of investigation. The panel could examine and query the detailed records, query the WCW, then determine whether to agree with the cause or set of causes proposed by the WCW, add new ones, and/or delete others. At the end of each case review, the agreed causes were then scored / rated for importance by each of the members of the panel individually. Independent scores were confidential, ranging from 4 to 1 (4 representing the most important contributory factor and 1 the least.) The examination of the 86 cases took place over a period of 4 days in two SPS sites in Carlisle and Reading.

7.3 The results of the Expert Panel analysis

This section presents the results of the Expert Panel review. The contributing factors identified by the panel are shown, along with the percentage of cases in that category which were determined to contain that error.

7.3.1 Error category 1: Multiple Payments

This category was described as: the initial payment was incorrect, which resulted in estimated payments and/or corrections made. Table 7.4 illustrates the results of the expert panel analysis of the most statistically significant contributors to this error condition.

Table 7.4 – Contributors to Error Category 1: Multiple Payments

Error Category: Multiple Payments		
Ishikawa number	Contributing factor description	Percentage within the category
1.3	Translation of Policy	15.8%
3.2.1	Commons Specialist Skills	8.9%
4.1.10	Claim Processing	7.9%
4.4.6	Customer-Provided Information	7.8%
4.4.3	Base Data	6.5%
2.5.4	Correct Entitlements	6.4%
2.8	Maintain Scheme/System Parameters	5.5%
3.1	WCW Skills	5.4%

The analysis indicates the greatest contributor towards late and multiple payments was '(1.3) Translation of Policy', which the panel explained as the organisation's interpretation of requirements and implementation of processing in the SPS delivery system. The expert panel indicated that the design of the

delivery system within the boundaries set by the rules was overly complicated. The allowance for tradable entitlements and multi-year corrections to base data created complexity that was not necessary. This was the manifestation of poor translation of policy. Additional factors (4.4.6-Customer-Provided Information; 4.4.3-Base Data; 2.5.4-Correct Entitlements; and 4.1.10-Claim Processing) were also listed amongst the multiple contributors to errors in this category. The combination of these factors reveals that multiple payments were a result of the policy that strongly encouraged payment as early as possible (2.8-Maintain Scheme/System Parameters). However, as the claim year progressed, subsequent adjustments to entitlements and commons; and valuation adjustments (as a result of claimant-provided information on land parcel sizes or use) resulted in a payment adjustment (2.5.4-Correct Entitlements).

7.3.2 Error category 2: Late Payments

This error is defined as multiple payments with at least one payment made after the payment deadline. The most statistically significant factors contributing to this error are presented in Table 7.5.

Table 7.5 – Contributors to Error Category 2: Late Payments

Late Payments		
Ishikawa number	Contributing factor description	Percentage within the category
1.3	Translation of Policy	12.5%
2.8	Maintain Scheme Parameters	11.8%
3.2.1	Commons Specialist Skills	11.5%
1.2.2	Reactive/Tactical objectives	10.6%
3.1	WCW Processor Skills	6.4%
3.4.1	Organisation Redesign	6.1%
2.7.4	Resolve Queries	5.4%

Prior to this investigation, this appeared to be solely the problem of worker skill level being inadequate to resolve errors in valuation in the given time frame, resulting in significant payment delays. However, the panel's review determined that many late payments were the result of a combination of several factors. The combination of translation of policy, reactive and tactical objectives, worker skill, and organisational redesign suggests that the delivery system may have employed an overly complex claim treatment process. The translation of organisational policy and objectives correlated with redesign, which appeared to leave worker skill level lagging behind the pace of change. When workers were not trained to resolve errors in the manner the organisation dictated, this resulted in delays in resolution where claims were finalised after the deadline.

7.3.3 Error category 3: Inefficiency from low versions / high interactions

High Interactions – Low versions includes unusually high numbers of corrective interactions in the same session. The most statistically significant factors contributing to this error are presented in Table 7.6.

Table 7.6 - Contributors to Error Category 3: Inefficient Work (Low versions / High Interactions)

Inefficient Work (Low versions / High interactions)		
Ishikawa number	Contributing factor description	Percentage within the category
4.4.6	Customer Provided Information	30.2%
4.1.10	Claim Processing	18.5%
2.3.2	Upload SPS Form Data	16.4%

The panel's analysis on this error condition suggests a combination of several factors. Those factors were:

- faults in the automated import of claim data (by optical character recognition, OCR) introducing errors in claim data

- input from the customer causing complex errors or sets of errors.

Here, the IT system designed to automate the input of claim data by OCR would incorrectly import data. This would raise an error for resolution. The WCW would open the claim file in RITA to rectify the errors. In a single session, the WCW would address several errors before saving the changes and ‘submitting’ the claim for valuation. This would provide a higher ratio of errors resolved per submitted version. This error correction action is similar to that of ‘normal’ claim processing, but with unusually high numbers of errors to be resolved.

7.3.4 Error category 4: Inefficiency from high versions / low interactions

This category included claim work off-system, or not working to the most efficient known claim treatment process. The most statistically significant factors contributing to this error are presented in Table 7.7.

Table 7.7 - Contributors to Error Category 4: Inefficient Work (High versions / Low interactions)

Inefficient Work (High versions / Low interactions)		
Ishikawa number	Contributing factor description	Percentage within the category
4.3	Business Products (IT Systems)	30.7%
3.4	Business Change Management	27.4%
3.1	WCW Processor Skills	15.1%

The worker’s use of the IT systems were the main contributor to this category. The analysis and discussion illustrated a scenario where the procedures automated in the IT system did not reflect the procedures taught to the WCW. The WCW was required to follow a strict procedure in opening and closing claims in RITA. This procedure instructed the WCW to close the claim by ‘submitting’ the claim, rather than saving changes and closing. In the instance where a WCW simply wanted to open the claim to inspect claim documents,

communications, or examine the changes to land data for a claim, the closing procedure of 'submitting' would create a new version. In this case, no changes had been made to the claim (no interactions were recorded) but the version would increase.

The panel's investigation described how inadequate coordination of change management at an organisational level led to WCW processor skills falling behind the speed of changes. The analysis by the panel posited that multiple changes in claim treatment procedures were made very quickly, which resulted in the WCW having to learn new procedures frequently. Many of the WCWs could not keep up with the changes and would use outdated procedures in treatment. This would result in the incorrect resolution of errors, or the unintended creation of other errors.

7.3.5 Error category 5: Tail Cases

This category includes claims that could not be treated to completion in the IT system before the ending deadline. The most statistically significant factors contributing to this error are presented in Table 7.8.

Table 7.8 – Contributors to Error Category 5: Tail Cases

Tail Cases		
Ishikawa number	Contributing factor description	Percentage within the category
3.2.5	Specialist Entitlements	13.4%
2.5.4	Entitlements Correction	12.2%
2.1	Maintain Customer Data	10.1%
2.1.6	Maintain Entitlement Data	7.8%

Entitlements trading and corrections work was significantly contributing to difficulties in making timely payments. Analysis showed that the claims in this error category were linked to large clusters of claims connected by traded

entitlements which required adjustment. This is clear evidence of the complication created by interrelation of claim data from traded entitlements.

This scenario reinforces earlier observations on the complications within the system and its relation to design characteristics. The confusing intertwining of entitlements and adjustments observed in these cases could not be managed by lower-skilled workers in order to produce highly accurate valuations. The combination of highly complex valuations, limited time frames, and a mandate for high levels of accuracy resulted in the inability for the delivery system to meet organisational goals.

7.4 Summary

Phase 1 of this research concluded that the delivery system exhibited characteristics congruent with the recommendations from the literature for this kind of organisation. However, the system was observed as not performing optimally. Phase 1 revealed poor connections between the IT systems supporting automation in the highly-rigid delivery system and the high volume of errors resulted in sub-optimal performance. This led to Phase 2 of this research, which investigated the nature of the errors associated with claim valuation. The aim of Phase 2 was to identify the contributors to sub-optimal performance in the delivery system. The investigation hoped to explore whether technology-driven automation was facilitating or hindering efficiency in claim treatment.

The investigation in Phase 2 was achieved through an extensive cross-sectional analysis examining a selection of cases over a completed claim year. The analysis traced the potential causes of claim errors. The Ishikawa diagram constructed for this research had four main categories of potential sources: Policy (scheme management), Process, Organisation (processor skills), and Product (IT systems, procedures and data). The overall results of the Expert Panel analysis shows that the principal arms contributed to causes of error as follows: Policy - 18%, Process - 23%, Organisation - 24%, and Product - 35%. These figures are helpful in identifying contributors to claim errors, but interestingly the research could not isolate a single cause for any of the five

claim error types. Instead, the analysis found that multiple interconnected factors contributed to errors in each of the categories.

Most importantly, the results of this phase of the research revealed that the automation of the delivery system was not a significant contributor to the errors affecting claim valuation. Summarising the various contributing factors from the panel, errors created solely as a result of the IT systems appeared only once (2.3.2 Upload SPS Form Data) on the list of the most often occurring contributors. The most often occurring were:

- (1.3) Translation of Policy
- (3.4) Management of Change
- (4.4.6) Customer Provided Information
- Errors in Entitlements
 - (3.2.5) Specialist Entitlements
 - (2.5.4) Entitlements Correction
 - (2.1.6) Entitlement Transfers (maintain entitlement data)
- Errors in data
 - (4.4.3) Base Data Changes
 - (2.3.2) Upload SPS Form Data

The expert panel determined that the difficulties in claim resolution involved errors linked to:

- the organisational structure
- the operational structure and processes
- worker training on procedures
- inaccurate data

This set of error causes confirmed findings of a similar nature in Phase 1, which focused on structure and process of the delivery system.

The first error category of 'Multiple Payments' appears to have its origins in the organisational policy to make payments as early as possible in the claim year. During the course of the claim year, after an early payment was made, workers made adjustments to entitlements, commons, and land parcel details. These

changes were prompted by claimant-provided information or the results of inspections. These adjustments resulted in changes to the claim valuation, which ultimately resulted in a multiple payment.

Error category two, 'Late Payments', was linked to a combination of translation of policy, reactive and tactical objectives, worker skill, and organisational redesign. The analysis suggests that procedures were changed too frequently for workers to keep up. Additionally, the expert panel felt the claim treatment process was overly complex. This resulted in rework and delays in resolution where claims were finalised after the deadline.

The factors contributing to error category three, 'Inefficient Work', centred on claimant-provided information. It was determined that the claimant introduced data which was either erroneous or simply caused further work by requiring adjustments. In the cases where the claimant provided data that was accurate (and allowed as part of normal procedure under scheme rules), it still generated further work in ensuring alignment with the rural land register. This often resulted in inspections which resulted, again, in additional work culminating in further delays in valuation.

In analysing the second of two 'Inefficient Work' categories, error category four, the panel's analysis revealed poor change management by the organisation. Operating procedures and IT systems were adjusted too frequently, resulting in the use of incorrect valuation procedures. Workers could not keep up with changes, use incorrect claim treatment procedures, and thus produce inaccurate valuations.

In analysing error category five, the 'Tail', the panel linked errors primarily to entitlement correction and transfers. These claims were part of a web of connected claims requiring complex, intricate valuations. Corrections had to adjust divided entitlements through a series of transfers affecting multiple claimants over several years. This resulted in both inaccurate and lengthy delays before producing accurate valuations. The entitlement adjustments were needed as a result of land data errors stored in the RLR dating back to the first SPS claim year. Subsequent claims and inspections surfaced these errors, but also resulted in multiple-year changes once identified; e.g. if the first-year

incorrect data is used in years two, three, and four then each year must be adjusted retroactively. If this data was also connected to a traded entitlement, the error was compounded for both the land owner and all the other claimants connected via ownership of the traded entitlement. This also resulted in lengthy delays before producing accurate valuations, while the whole network of interrelated claims was adjusted.

7.5 Conclusions from Phase 2

Considering the analysis of the five error categories, it is important to restate that the results of this phase of the research revealed that the automation/IT supporting the delivery system was not a significant contributor itself to the errors affecting claim valuation. The interpretation of the rules (as described by the mandate), the design of the claim treatment process, and the pursuit of high levels of both accuracy and efficiency resulted in the creation a delivery system that was required to be very good at finding valuation errors, but to not allowed to expend the appropriate levels of resources in resolving them. The results of the Expert Panel analysis show that in this delivery system, errors were easily created but difficult to close completely.

In the context of a mass claims process like the SPS, the extant literature recommends high levels of automation in a highly-rigid delivery system to achieve optimal performance of organisational goals. Observations made in Phase 1 of this research determined that these delivery system design characteristics were found to be in place in this organisation. However, the observations made in Phase 2 of research show that rigidity in the system inhibited the swift resolution of claim errors, thus contributing to sub-optimal performance.

The characteristic of delivery system rigidity was described by Wemmerlöv (1990) as containing several characteristics, among them: worker skill level and degree of employee discretion. In highly rigid delivery systems, the skill level of the workers involved is described as generally low. The evidence produced by this phase of the research showed that the skill level of the WCW is relatively

low; the skill level of the specialist workers involved in valuations of claims involved in entitlement-based work is relatively higher².

Additionally, this research produced evidence describing worker discretion as very low, due to the need for strict adherence to a detailed set of rules which govern the process.

When considered vis-à-vis the recommendations from the literature for design of delivery systems, the complication observed in some areas of the claim treatment process (*i.e.* Entitlement Corrections) appears to make the choice of a highly-rigid delivery system inappropriate. The resolution of these complicated situations typically require higher-skilled workers with the freedom to work with a degree of discretion; both of which are characteristics of delivery systems with higher degrees of fluidity. The evidence presented in this Phase of research shows there is misalignment in these areas.

SPS rules demand a high level of accuracy in valuation of land-based data, and also permitted the creation of tradable entitlements. The rules on entitlements supported the emergence of a complex network of entitlement-based interconnections between claims, as evidenced in investigations on error category five: 'Tail' cases. Disentangling these interconnected networks was required to ensure accuracy in payment amounts. The emphasis on accuracy resulted in several observed outcomes:

- Extremely high numbers of valuation adjustments for very small incremental changes in land size
 - evidenced by investigations on Error Category 1 – Multiple Payments; and Error Category 3 – Low versions / high interactions
- Complex multi-year adjustments to valuations
 - evidenced by investigations on Error Category 5 – Tail Cases; and Error Category 1 – Multiple Payments

² Still not as highly-skilled as those in the professional services industry, such as lawyers, accountants, etc.

As the number of interrelation-linked errors increased, the organisation was forced to increase resource consumption to treat the body of claims. The organisation drew upon its existing employees to make sense of these networks and multi-year adjustments. As described in the previous chapter, these employees were drawn from a pool of lower-skill workers.

While the majority of claims appeared to be processed relatively quickly, the remainder faced complications which emerged during the treatment process. This was especially true for those claims which required both adjustments to entitlement and greater customer interaction. There is also an implication that management decisions to pay claims early (before many of the more complex claims are valued completely) resulted in a higher incidence of multiple payments for those claims. This appears to be an unintended consequence of managerial attempts to positively influence performance metrics on payments. For SPS, what appeared to be a positive metric (early payments), actually resulted in higher levels of inaccurate payments.

It is conceivable that the volume of errors in valuation would be accurately resolved given a lengthier period time. However, the restrictions of time and accuracy were set in the rules prior to the establishment of the delivery system, and are part of the organisation's Service Concept. As such, the delivery system is required to align to these restrictive goals to perform optimally.

This phase of the research revealed that SPS' sub-optimal performance could be traced back to a high volume of complex valuation errors which were required to be corrected using a strictly prescribed procedure to produce a highly accurate valuation. Compounding the problem, all of this had to be done in a limited time frame. Given these conditions, it appears the characteristics of the delivery system were not aligned to the Service Concept to support optimal performance.

Even though the analysis performed in Phase 2 of the research was able to identify errors which contributed to sub-optimal performance in the delivery system in 2008, some of the complexity of the errors encountered in the expert panel's cross-sectional analysis was often disregarded because the nature of

the problems lay in previous claim years. The nature of these multi-year spanning problems posed unanswered questions to the research design.

To determine the delivery system design characteristics to optimise performance in this context, the nature of these complex errors requires examination. A longitudinal study of problematic claims would better illustrate the origin of multi-year claim errors. A third phase examining the cause-and-effect relationship of the multi-year problems would provide a more complete understanding of the issues found in this delivery system; this understanding would then inform the recommendations on Delivery System design for optimal performance.

Using the results of Phases 1 & 2, Phase 3 of the research examines the multi-year nature of the errors leading to untimely, inaccurate, or inefficient claim processing.

8 SPS Phase Three - Investigation of operational challenges

Phase 1 of this research conducted an examination of the structure of the delivery processes, which led to the understanding that the organisation expended a great deal of resources correcting errors in claims which prevented accurate valuation. Phase 2 performed a cross-sectional analysis of errors during claim treatment to understand the potential contributors to those problems. The results of the analysis revealed a combination of contributors to inefficiency in claim treatment and inaccurate valuations. These findings supported the position that the IT system was not a primary contributor to inefficiency or inaccuracy in the delivery system. The most common contributors were changes to procedure; the establishment of a set of rules which permitted entitlement corrections and transfers; and ongoing land-based data adjustments.

However, the source of the creation of these contributors was often not determined during the cross-sectional investigation because the investigation examined the 2008 claim year in isolation. It was determined that some of the observed problems had clear connections to events in past claim years. Additionally, it was shown that the rules governing the delivery system were contributing to the increased consumption of resources and time; missing organisational goals for delivery.

In-depth longitudinal analysis of single claims would provide insight on the origins of these errors. Such a longitudinal study required a third phase of research to further examine the nature of the creation of these errors. Through an examination of the sources of the errors, the research aims to better understand the effect the errors have on the overall performance of the delivery system. Understanding the origin of the errors will further support conclusions which address the research question focusing on delivery system design characteristics in this context.

Section 8.1 of this chapter will describe the longitudinal approach to examining the errors and their potential related causes. Section 8.2 presents the data collected during this third phase. Section 8.4 presents the conclusions drawn from this phase of the research. Finally, section 8.5 presents the discussion on

the summary of research findings for the SPS. Attention will be drawn to the differences between the recommended delivery system design characteristics, and those found in place in the SPS. Areas of concern will be highlighted for use in the second, polar case study for further investigation.

8.1 The longitudinal study

As described in the methodology chapter, cross-sectional approaches are helpful in exploring causality and correlation, but they are not particularly helpful in explaining the direction of causation, or explaining why events occurred in a certain way (Easterby-Smith *et al.*, 2002). Longitudinal studies have been shown to be more helpful in “*explaining the temporal sequence of events that unfold*” (van de Ven & Huber, 1990: 213). Such a sequence would allow investigators to follow the sequence of events back to the environment and conditions in which errors originated.

The aim of this phase of the research is to identify the original set of events which later combined to create the errors which caused inefficiency and inaccuracy in claim valuation. As such, the use of a longitudinal study is justified. It is hoped that through clear identification of the causes of error, the characteristics of a more effective delivery system can be established.

8.1.1 Overview of the Phase 3 method

A subset of claims from the panel review in Phase 2 was chosen for further examination in this research phase. Each case was explored by the researcher and a highly experienced whole case worker (WCW). The inclusion of the WCW was required in order to be able to navigate the various files and IT systems where data was held. The WCW also provided perspective which comes from the experience of having worked extensively in the SPS delivery system. He also was able to describe how an employee was instructed to approach the situations described in the cases using the relevant recommended procedure. The researcher acted as investigator and questioned, probed, discussed, and suggested further enquiry on the cases during these ‘deep dive’ investigations.

Four separate sessions took place over four days. Ultimately, 17 cases were chosen from the 86 cases from the previous phase. The selection was guided

by theoretical sampling (Glaser & Strauss, 1967) in that the sample was biased toward those cases which posed the greatest challenge to the delivery system. Phase Two of the research established that the claims with late and multiple payment errors posed the greater challenge to the delivery system. As such, the sample contained a much higher number of claims with late and multiple payments than a purely representative sample of the population. The categorical representation from each error condition is shown in Table 8.1, below.

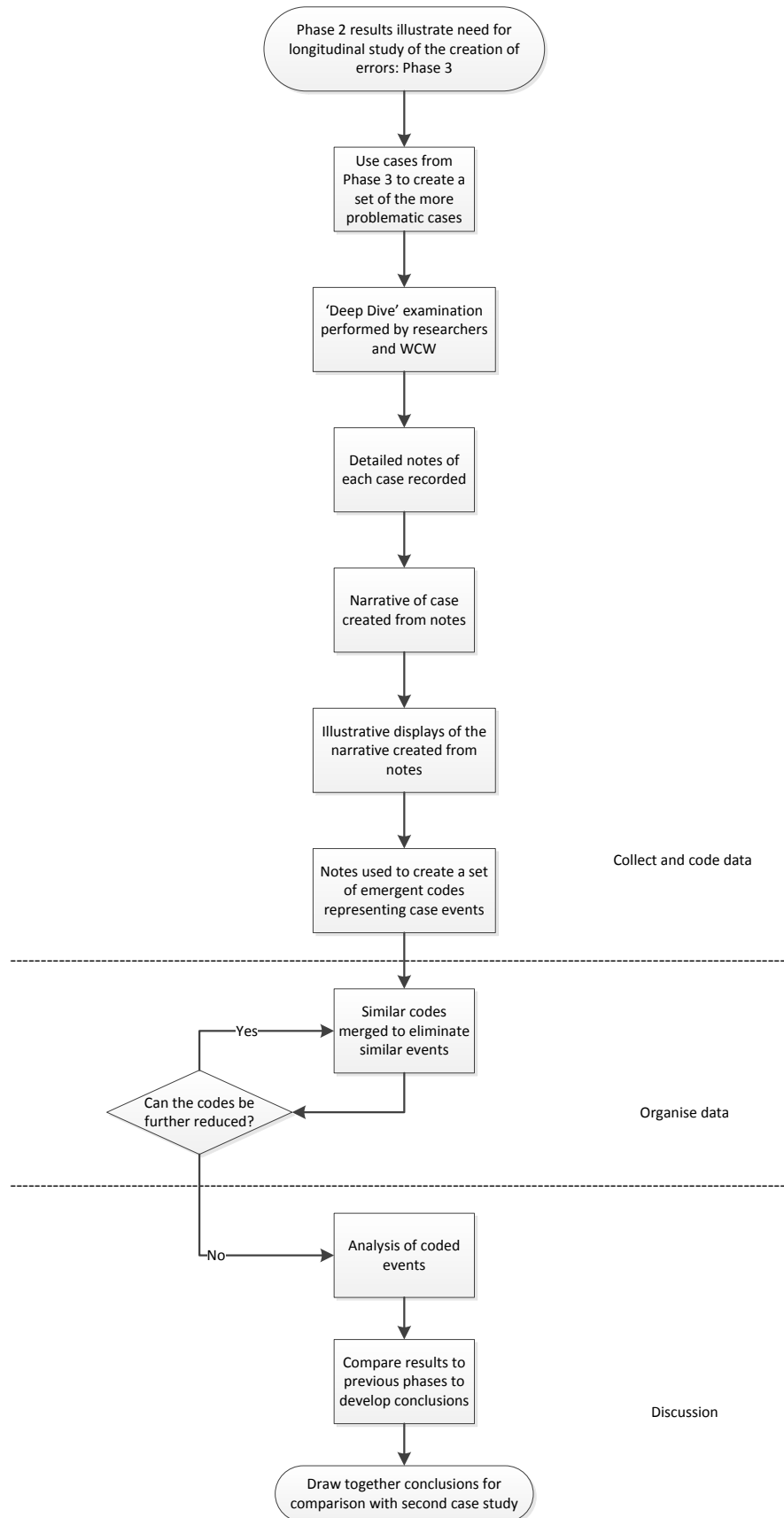
Table 8.1 - Case categorisation for longitudinal study

2008 error condition	Number of cases examined
Late and multiple payments	12
Inefficient work	3
Tail Cases	2

The notes from the examination of each case were used to create a narrative of that case, and to form data displays. The displays show the pattern of events recorded in the narrative and reflect the causal relationships, where determined, between events. Thoughts and notes about the case were also coded in the margins of the illustrations.

A visualisation of the research process is presented on the following page in Figure 8.1.

Figure 8.1 – Research method for Phase 3



8.2 The data from the longitudinal study

The goal of this phase of research was to identify a time and event sequence for each case. This approach was designed to identify the causes of errors in problematic claims. Further, this phase intended to identify the series of events which ultimately manifested as the timeliness, inefficiency, or accuracy error.

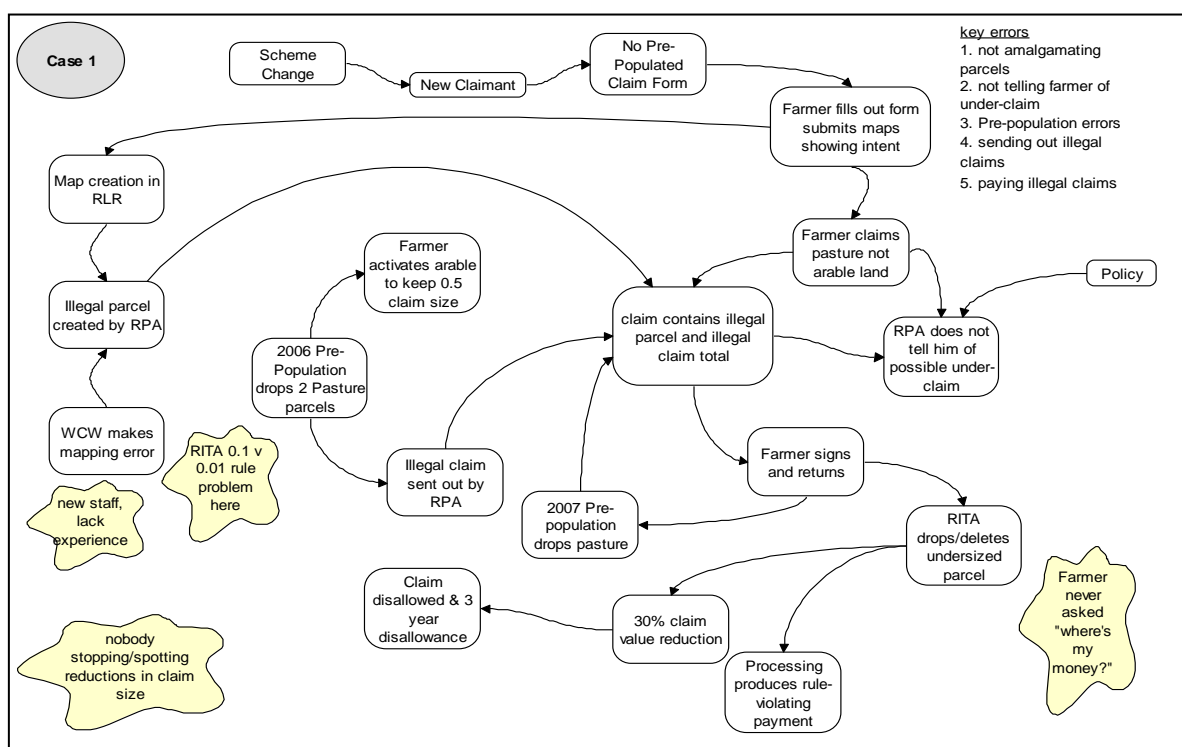
8.2.1 Data - Case illustrations

After the examination of the 17 cases, the series of events from each case was placed into a visual representation in order to better illustrate the sequence of the case. A narrative to accompany each illustration was also created in order to convey the richness of the story. A selection of the illustrations and narratives is provided below; the full set of 17 illustrations and the accompanying narratives can be found in Appendix H and Appendix I respectively.

Case 1

The first case illustrates the combination of claimant errors, processor errors, IT system errors, and complications created by SPS policy. This case was in the 'Late Payment' category. The longitudinal analysis shows this claim also produced multiple payments. The illustration of Case 1 is presented in Figure 8.2, below; immediately followed by the accompanying narrative of the case.

Figure 8.2 - Case illustration of Case 1



“Case 1 – Category: Late payment.

In 2005 maps were sent to the claimant for confirmation of the size and use of land parcels. The claimant returned the maps, in which some eligible, claimable arable land was not activated. By not activating this land, the claimant lost the ability to claim any of it in the future. No advice was given to the claimant that he was omitting the potentially eligible arable land.

An illegal parcel (under the 0.1 size minimum) was created by the RPA from the detail returned by the farmer. This parcel was a segment of a larger field which should have been joined by the WCW, but was not. In 2006, the pre-populated form was sent to the claimant containing the illegal parcel. The claimant activates his entitlements on the Arable land on his claim form. The claimant signs and returns the SP5 form.

The pre-population of the 2007 SP5 form drops/omits the pasture land that the claimant did not activate the year before. The claimant did not act to change/adjust this error. The same year,

the illegal, below-minimum parcel sent out in the 2006 pre-populated form was 'zeroed-out' by RITA, effectively dropping it from the claim. Dropping this illegal parcel also drops the overall size of the claim below the minimum claim threshold of 0.3. This triggers a penalty and disallowance in 2009 against this claimant, when the discrepancy is finally discovered. Errors in RITA programming allowed a claim falling below the minimum total hectareage threshold (0.3), and the minimum field size (0.1) to be processed from 2007-2009.

In summary, this claim had a legitimate potential land size of 0.7 hectares, but through a series of technical errors, claimant errors, processor errors, and misunderstandings, the claimant was penalised and disallowed.”

The above narrative describing the longitudinal investigation of the first case clearly shows how actions from past claim years eventually connected to manifest the late payment in a later claim year. This supports the observations on the multi-year origin of errors made in Phase 2. In this case, the narrative describes a combination of early stage data collection errors and policy decisions which prohibited the organisation from proactively advising the claimant of potential outcome. The resultant errors are later combined with WCW errors to result in a late payment and a penalty against the claimant which might have easily been avoided.

Case 2

The second example case describes how automated data capture using optical character recognition (OCR) combined with unhelpful policy decisions and a complex network of entitlement adjustments to generate payment errors. This case was investigated as a 'Late Payment' error. The illustration of Case 2 is presented in Figure 8.3; immediately followed by the accompanying narrative of the case.

[illegible]

In 2005, manual high volume data capture mistakenly captured a parcel value of 5.5 when in fact the actual value was 3.5. Upon investigation, the handwriting on the form was not perfectly clear and required closer inspection, but could be determined. This would later require corrective action.

It was these ongoing investigations which led to the delay of payment, after entitlement correction completed in late 2009. Of note: the claimant still submits a claim form with land but no

entitlements, and therefore receives no payment on his processed claim.”

Again, the cases above were provided as an illustrative example of the investigation approach. The complete set of illustrations and narratives can be found in Appendix I. Once the narratives from all 17 cases were complete, the researcher began the process of coding the narrative for further analysis of the contribution to error.

8.2.2 Data - Coding the claim events

The main events in the case narrative were identified and used to begin the process of data reduction. These events formed the introductory level of codes, followed by each subsequent case being coded using an emerging code method (Miles & Huberman, 1994). When reviewing new case events using this method, an existing code can be applied if the event had occurred in a past case and been so labelled. Coding the contents of each case reveals the similar events experienced across the set of cases, which will provide critical input to the ongoing process of conclusion drawing.

To begin the process, a set of significant events from each case was recorded in separate tables. Table 8.2, below, is an example of such a table with events from Case 1.

Table 8.2 - Table of case-related events

Case no.	Event
1	scheme change
1	new pony paddock in 2005
1	no prep pop claim form
1	manual entry of data
1	map creation required in RLR
1	creating base data
1	claimant fills out forms and maps
1	claimant claims pasture and not arable
1	RPA does not tell him of under claim
1	ineligible parcel created by RPA in RLR
1	Processor error in mapping an ineligible parcel (2X parcels under min value)
1	2006 prepop drops 2 parcels of pasture
1	claimant activates arable to keep 0.5 claim size

Case no. Event

1	2007 prepop drops pasture
1	creates two parcels; one illegal/total illegal
1	illegal claim sent out by RPA
1	illegal claim sent out by RPA
1	RITA deletes illegal parcel
1	30% claim reduction penalty
1	claim disallowed and 3 year penalty
1	processing produces rule violating payment

These events from each case were then coded using the emerging code method described above (Miles & Huberman, 1994). Each event from the case (as illustrated by Table 8.2) was given a code. The example below in Table 8.3 provides an illustration, using the initial set of codes from case 1.

Table 8.3 – Table of codes emerging from events

Case number	Event	Initial coding
1	scheme change	scheme change
1	new pony paddock in 2005	claim land data change
1	no prep pop claim form	scheme change
1	manual entry of data	HVDC
1	map creation required in rlr	Standard mapping
1	creating base data	claim land data change
1	claimant fills out forms and maps	claimant intent
1	claimant claims pasture and not arable	claimant intent
1	rpa does not tell him of under claim	miserly culture
1	ineligible parcel created by RPA in RLR	Error in application of SPS rules
1	Processor error in mapping an ineligible parcel (2X parcels under min value)	Error in application of SPS rules
1	2006 prepop drops 2 parcels of pasture	Pre-Population Drop Error
1	claimant activates arable to keep 0.5 claim size	claimant intent
1	2007 prepop drops pasture	Pre-Population Drop Error
1	creates two parcels; one illegal/total illegal	Error in application of SPS rules
1	illegal claim sent out by rpa	IT system error
1	illegal claim sent out by rpa	Error in application of SPS rules
1	RITA deletes illegal parcel	RPA tactics
1	30% claim reduction penalty	Scheme rules
1	claim disallowed and 3 year penalty	Scheme rules
1	processing produces rule violating payment	IT system error

This procedure was repeated for each of the 17 cases. The complete set of initial codes from each of the cases is provided in Appendix J. From the 17 cases, 308 events were listed and a total of 62 codes were derived. The full set of these 62 codes is available in Appendix K.

The first set of 62 codes was then subjected to another iteration of data reduction with the aim of merging similar codes. These codes were subjected to another iteration of reduction, again merging similar codes and integrating subsidiary codes into an over-arching one. Care was taken to ensure the meaning of the event which led to a code was considered before a potential merger. For example, the data used to pre-populate forms comes from the base data; but the meaning of the pre-population error was grounded in poor timing by the organisation in using land data before all the changes had been recorded. This is not an error in the base data, so the two codes remained separate.

After four rounds of reduction, the 62 codes were reduced to a set of 9 codes, which the researcher felt could not be reduced any further. The final codes are presented in Table 8.4.

Table 8.4 – Final codes from case narratives

Number	Final Code
1	Base data errors
2	Form pre-population errors
3	Claimant errors in form completion
4	Scanning errors
5	System errors
6	WCW errors
7	Land and entitlements trading
8	Processing cycle alignment
9	Commons land

Each of the nine codes will be described in more detail in the following section.

8.2.2.1 Descriptions of the nine main codes

The nine codes and contextual examples from each case are provided for further illustration of how the errors affected the claims over the multiple claim years.

Base Data Errors

Base data errors were inaccuracies in recording parcel sizes at the start of the scheme in 2005. These can be further subdivided into land errors and entitlement errors. There were two causes identified for these errors.

The first was the use of high volume data capture (HVDC) which was an automated system for capturing data from claim sheets using optical character recognition (OCR) technology. The organisation observed that neither the data quality nor IT systems were sufficient to perform the task. This led to the recruitment of agency staff to manually input data in order to meet scheme start deadlines. This resulted in errors in base data used in performing calculations by the delivery system. When these errors were identified in subsequent years, it resulted in the need to recalculate payment values.

The second significant contributor to base data errors was mapping errors. New base data had to be created for land submitted by nearly 30,000 new claimants (source: RLR – Exeter interview). This was done using hard copy maps submitted by the claimant. These were then entered into the IT system using specialist software, but overseen by workers who could make manual corrections to the inputs. Errors were made at this stage due to the inexperienced staff members and faults in the software. When these errors were identified by physical inspections or WCW review, corrections were needed.

This had the potential for knock-on effects to other claimants because errors in land parcel size affected entitlements as well. Entitlements were based on the land parcels claimed in 2005. These errors could remain latent for years until detected. Once identified, the data was required to be corrected for each claim year back to 2005. This led to the revision of payments in previous years which had been valued inaccurately.

Form pre-population errors

Once a set of base data had been collected, claim forms could be sent to the claimant with the previous year's information already added to the form. The intent was to send the claimant a form which reflected the changes made from the previous claim year. The assumption was that the work had already been done to make the claim accurate. By pre-populating the form with the 'correct' data, it might eliminate the potential for the claimant to introduce data which could lead to errors and corrective work. The claimant would simply sign the form and send it back, barring any routine changes which may have happened since the last claim was fully treated.

This pre-populated data was observed to be inaccurate in some of the claims; an observation confirmed in both the panel review and the 17 case reviews. Through further analysis, it was determined that the various processing cycles operating within SPS were not aligned (this misalignment will be discussed in more detail below). This meant that the data drawn from claim form for the pre-population was taken while corrections on claims were still ongoing. Forms were distributed to claimants with out-of-date, inaccurate data before the completion of data correction/adjustment made the claim accurate.

The claimant would receive an incorrect form which could be manually corrected if the error is noticed, and then submitted. The manually corrected form needed to mirror the corrected data or else a data misalignment error would be triggered, requiring manual WCW intervention and corrections. If the error is not noticed by the claimant, and the form is signed and returned; this would trigger a data misalignment error requiring manual WCW corrections and intervention. In this second scenario, the claimant could also be penalised for submitting a fraudulent claim.

Claimant errors in form completion

Claimants often made errors in completing or reviewing the prepopulated form. There were several potential causes for this: poor claimant capability; high frequency of changes to the form and procedure; and a degree of misplaced trust on behalf of the claimant that the data on the prepopulated form was correct. Any error in form completion by the claimant would lead to WCW

intervention and corrections. If the error was not discovered in the data alignment checks, the error could surface later by an inspection or map update. This could lead to a series of over/underpayment investigations and potential penalties for the claimant.

Scanning errors

When the claim form is returned, any manual adjustments made by the claimant were first passed through document scans. This was an efficiency measure which hoped to collect the adjusted data through automated OCR technology. If that technology was unable to interpret the writing of the claimant, the scan would fail and manual intervention was required. A more potentially troublesome situation occurred when the OCR interpretation of the manual correction was incorrect, and subsequent valuations used the inaccurate data. Again, inaccurate valuations led to over/underpayments and subsequent collections/top-up payment work.

System errors

System errors occurring in the main RITA system led to incorrect value calculations, resulting in incorrect payments, resulting in further recovery or top up payment action being required. Examples of this include: IT system integration errors, such as when the payment systems in finance show a balance which is not equal to the balance contained in the claims treatment systems; or when entitlements linked to a claim were 'dropped off' in the IT system causing a valuation error. Such errors were attributable to flaws in the design and operation of the IT systems.

WCW errors

In the absence of clear instruction, a WCW could enter data which was a near-enough approximation to allow the IT system to move the claim to the next step in the process. This action was certainly not malicious, and intended to assist the progress of the claim. Interviews showed that WCWs understood that their actions had no procedural grounding. Corrections would be sufficient to move the claim to the next step, insufficient to provide an accurate valuation. In some cases, procedures changed with relative frequency. This resulted in case

workers applying different methods to similar problems. In this case, the use of an incorrect procedure was considered a WCW error.

Entitlement trading

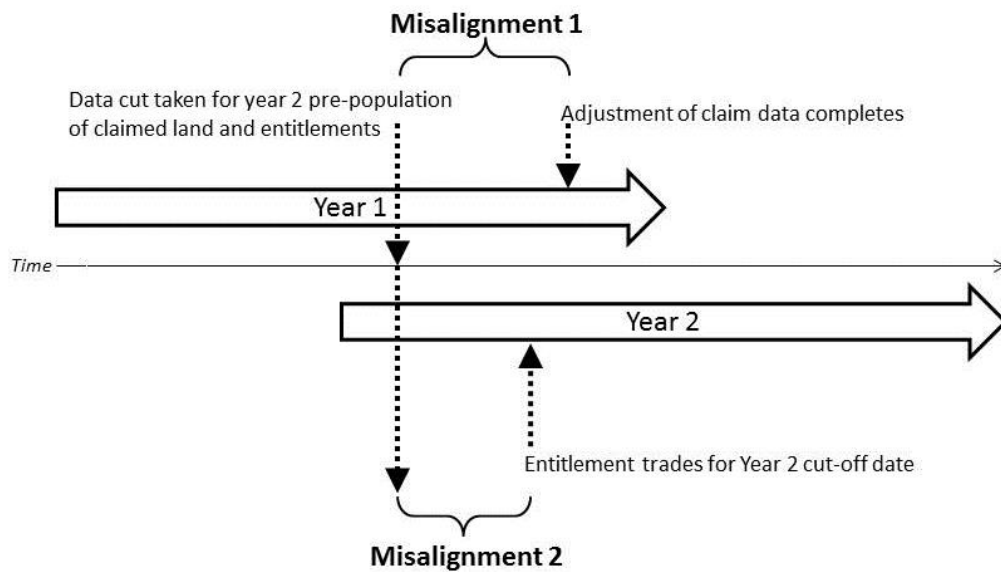
The ability to split land from entitlement, thus creating a tradable commodity out of entitlements, created a complexity in claims treatment that the original IT system was not designed to manage. When combined with the claimant's ability to subdivide and trade an entitlement any number of times, tracking ownership and managing the body of entitlements began to consume a significant amount of resources. The original IT version of RITA that was developed to manage claim flow had no inbuilt functionality to manage this task. A new version of RITA, called Epsilon, was intended to provide this function, but it was released after three annual claim cycles. This created a backlog of necessary changes and resulting payment adjustments.

Entitlement trading was also linked to a misalignment in processing cycles, but that will be discussed in the following section.

Processing cycle misalignment

During the course of a normal claim cycle, the organisation would be simultaneously completing the current claim year while preparing for the next. One of the early claim year actions is the pre-population of claim data onto the claim form. The data required for pre-population was required before the current claim cycle had completed. During the period of time when the data for pre-population was taken and the time when adjustments to land parcel data would end, any adjustment to land data made would create an error in the next year's claim cycle. This period of cycle misalignment is illustrated as '*Misalignment 1*' in Figure 8.4 below.

Figure 8.4 - Processing Cycle Misalignments



A second misalignment existed for the work on the tracking and registration process of traded/subdivided entitlements. Similarly, entitlement trading was allowed after the data cut was taken for pre-population of claimed entitlements on the claim form. This misalignment is illustrated as '*Misalignment #2*' in Figure 8.4 above. Adjustments performed during the period of '*Misalignment #2*' had the same ability to impact the treatment of claim data, which led to inaccuracies in valuation.

Commons land

Regular reviews and reinterpretations of the Common Land Register, administered by entities outside the RPA, led to ongoing adjustments to claims. A change made to any claim on a Common had the ability to affect all other claims on that common, due to the nature of the calculation. The potential value of common land is calculated as a factor of the number of successful claimants.

The above section describes each of the codes used in the cause and effect analysis, presented in the next section.

8.2.3 Data: cause and effect analysis

Once a generalised set of errors had been identified, the research then aimed to explore the cause and effect relationship associated with the errors. It was

felt that a deeper understanding might be gained by returning to the narratives and illustrations generated for the 17 focal cases to see how the errors were caused. From the cause or causes, the chain of events could be used to illustrate the emergence of the errors which most seriously affected the delivery system. Using the generalised set of nine error codes, the researcher could then use the narratives and case illustrations to create a generalised set of error types within that code. The narratives and case illustrations could then also be used to show how the related causes and effects linked to each error type.

Table 8.5 below illustrates the related causes and effects of each of the error types.

Table 8.5 - Cause & Effect of error types

Category of Error	Type of Error	Is caused by...	With the potential effect of...
Base Data	Land	HVDC	Incorrect land parcel values accepted into crucial introductory data; affects all years forward until corrected.
		Mapping	Incorrect land parcel values accepted into crucial introductory data; affects all years forward until corrected.
		No inspection performed	Incorrect land parcel values accepted into crucial introductory data; affects all years forward until corrected.
	Entitlements	HVDC	Incorrect land parcel values accepted into crucial introductory data; affects all years forward until corrected.
		Claimant Error	Incorrect land parcel values accepted into crucial introductory data; affects all years forward until corrected. Leads to penalty/disallowance if error is greater to actual entitlements.
Form Population Errors	Omission	System Dropping Data	Incomplete claim forms sent out; signing leads to claimant losing land/entitlements.
	Commission	Taking cut before all tasks completed on all claims	Unaligned data. Necessary work to align the data. Confused claimant who needs to change data sent to him after it was corrected with him last year.
Claimant Errors in Form Completion	Incorrect Entries	Claimant Capability	Tasks in RITA; work to investigate the task; work to correct error.
	Correct Entries in Wrong Place	Claimant Capability & Frequent	Tasks in RITA; work to investigate the task; work to correct error.

Category of Error	Type of Error	Is caused by...	With the potential effect of...
		Changes to Formwork	
	Assumption that prepopulated form is correct	Claimant Trusts RPA, RPA Assumes Claimant Reviewed the Form	Form processes successfully but the payment is wrong. Claimant either paid too much and he is penalised; or not paid enough (with no recourse available to claimant.)
Scanning Errors	OCR	Form filled out poorly	Misalignment of data; Task raised to correct if Over-Claim, but nothing done if under-claim. Under-claim leads to inaccurate payment.
	Scan Failure	DMU system failure, underperformance	Many OLV errors to correct, resulting in work required to fix errors.
System Errors	Value Dropped	IT system poor performance	Wrong value of payment; additional work to top-up payment if the claimant notices and acts.
	Working day, timing of system update	Lack of updated rules in the IT system	Incorrect penalties, and additional work to top-up payment if the claimant notices and acts.
WCW Errors	All	Lack of case notes	No audit trail; longer familiarisation period when someone picks up the case.
		Ownership of processing	WCW makes a fix, not a correct solution; creates work down the line to find the correct action.
		Different methods	Constantly changing procedures.
Non-Claim Cycle Errors	Entitlement Transfers	Claimant Error	An appeal is filed; additional work in the mandatory processing of the appeal
	Land & Entitlement Transfers	Probate Delays	Late payments which need to be dropped from reporting as they are legitimate delays; as well as all the mandatory and legitimate work to manage the probate.
Processing Cycle Alignment	Deadline Overlap	Differently aligned deadlines	More RPA-created work. Changes made after the pre-population data cut create misalignment in data for the current claim year, thus creating extra work and possible payment adjustments.
Commons Land	Entitlement adjustments	Regular review and re-interpretation of the Commons Land Register	Changes to CLR cascade into payment adjustments if processing continues after some payments are made.

This table presents evidence drawn from the investigated cases of the links between errors and their causes for those errors which posed the greatest

challenge for this organisation. As discussed above, the claims which contained these errors were a sample of the most problematic claims for the organisation. These errors led to the delivery system failing to meet organisational targets in payments to claimants.

8.3 Conclusions from SPS Phase 3

This phase of research presented analysis of problematic claims and the errors associated with those claims. The research has produced a more detailed illustration of the challenges facing this delivery system for mass claims processing.

The understanding generated by the cause-and-effect analysis performed in this research phase provides the focus for the following set of conclusions. As established in previous phases of this research, the delivery system was failing to meet efficiency, timeliness, and accuracy goals. Phase 3 of this research investigated the contributing events leading to such failures.

The delivery system consumed excess organisational resources reacting to erroneous 'Base Data.' This data described land size and use, used in calculating claim values. These errors were introduced into the treatment process in two ways: by inadequate data capture technologies which misread or incorrectly transliterated data provided by the claimant in their claim form (scanning errors); or by worker-caused errors in the creation of maps. In both cases, inaccurate data was introduced into the valuation process. This resulted in inaccurate valuations and the pursuant need to correct the data to produce accurate outputs.

Claimants also submitted erroneous data in claim forms. This led to the consumption of resources within the delivery system to correct the data. Significant effort was required to correct the data during the claim treatment process, well after the claim was submitted and accepted by the organisation.

Efforts to create efficiency led to additional problems. By pre-populating claim forms, the organisation attempted to save the claimant time and effort in submitting claim data. This would also provide benefit to the organisation, in that only the claim data that had been adjusted would require input, rather than

the entire contents of the claim. This showed that inaccurate data was used to pre-populate claim forms, which confused claimants. Claimants would then adjust the data on the forms again and submit them. The set of adjusted data had to be entered and verified by the organisation. This is an example of the delivery system creating work for itself, which is both inefficient and inaccurate by the organisation's own definition.

Phase 3 of the research also confirmed the observation that pre-population errors were linked to the organisational decision on when to draw the set of data used to pre-populate claim forms. The data was taken before all the corrections were made in the claim cycle. This was determined to be a problem created by managerial decisions.

Workers and IT systems were observed to be contributors for other problems. IT systems contained flaws which mishandled claim data. Poor design of the IT system resulted in the need for manual intervention in critical parts of the process (managing entitlements, valuation, and payment.) The analysis showed that workers created errors through the incorrect application of procedure. However, the investigation from the expert panel shifted much of the responsibility away from the workers, placing much of the blame on far too frequent changes in organisational policy on procedure. Again, this places a point of emphasis on managerial decision-making and the use of low discretion, low skill employees.

Lastly, there is evidence from this phase of research that shows the decision to use entitlements connected to claims introduced significant complications to the claims treatment process. This led to the consumption of significant amounts of organisational resources in order to create accuracy in payments. The IT systems were unable to manage this work. This accuracy could only be achieved through the use of a large number of more highly-skilled workers performing non-automated work. For those claims in the 'Tail', even this approach was not fruitful. The Tail claims were largely embroiled in complex networks of entitlement adjustments. These networks had interrelated claim information, as observed in Phase 1, creating a confusing and frequently-changing problem which evaded permanent solution. Without solutions, no

confidence could be gained by the organisation on the accuracy of valuations for claims involved in these networks.

From the above conclusions, it is clear that data adjustments consumed significant amounts of organisational resources within the delivery system. Highly accurate claimant-related data was required for both accurate valuations and for efficiency within the delivery system.

Additionally, it was shown that managerial decisions and inadequate IT systems were negatively impacting the ability of the delivery system to efficiently achieve accuracy in claims. However, these were of lesser significance when compared to the problems posed by inaccurate data.

The following section presents discussion which draws from all three phases of the research conducted on the SPS. The section will present the phenomena which pose operational challenges to the delivery system for this Mass Claims Process.

8.4 Discussion

This discussion section will briefly summarise the context and research phases addressing the research question: “*What are the delivery system design characteristics for information-centric Mass Claims Processes?*” A précis of the results of the research phases will be provided, followed by discussion on how the results inform the relationship between optimal performance and characteristics of the delivery system in Mass Claims Processes.

8.4.1 Summary of the research

In considering the context and the guidance provided by the Mass Claims literature, the characteristics which define the sufficient and necessary conditions to be a mass claims processes are present in this organisation. Therefore the SPS is appropriate as a case study for this research.

Further, in considering the categorisations of delivery systems provided by the OM literature, the characteristics of the SPS place it in the archetypical categories of a ‘connected line’ or ‘mass service’. The extant research on such types of delivery systems states that to reach optimal performance, this sort of

organisation is advised to implement the characteristics associated with rigid delivery systems, as detailed in Table 8.6, below.

Observations from Phase 1 of this research determined that these relevant characteristics were present in the SPS delivery system. The observed characteristics (from chapter 6) are reproduced here for ease of reference; also included is the set of design characteristics for rigid delivery systems as drawn from Wemmerlöv (1990) presented in Table 8.6.

Table 8.6 – Observed characteristics of SPS compared to Rigid Systems Characteristics

Characteristic	SPS Observation	Characteristics of Rigid Systems
Degree of Employee Discretion	Low	Low
Worker Skill Level	Low, Medium, & High <i>-Varies by Role-</i>	Low to Medium
Degree of Automation	High	High
FO/BO Separation	Separated	Separated
Degree of Routinisation	Highly routinised	-

Despite possessing the recommended characteristics for rigid systems, SPS was failing to achieve optimal performance in reaching organisational goals. The challenges to success came from the phenomena observed in the organisation.

- High levels of inaccuracy due to poor quality land data
- High levels of inefficiency due to the need to fix claim errors
- Interrelation of claim data cascading changes into networks of claims

While Phase 1 produced observations showing that a seemingly-appropriate delivery system was in place, this phase could not produce understanding on how the errors which inhibited performance were created. More information was needed to determine if the automation systems were contributing to error

creation. Both the delivery system design literature (*primarily* Wemmerlöv, 1990) and the MCP literature (*primarily* Heiskanen, 2003) emphasise high levels of automation as critical to deliver efficiency benefits in this type of delivery system.

The aim of Phase 2 was to identify the contributors toward sub-optimal performance in the delivery system. This phase paid particular attention to the information technology acting as the mechanism for the core transformation within the delivery system. Using cross-sectional research methods, it explored whether technology-driven automation was facilitating or hindering efficiency in claim treatment. The panel review determined that the difficulties in claim treatment involved errors linked to: the operational structure and processes; worker training on procedures; and inaccurate data. This set of error causes confirmed findings of a similar nature in Phase One.

The results of the cross-sectional research in Phase 2 shed more light on how the errors associated with claims contributed to organisational failings in timeliness, efficiency, and accuracy. However, the panel's investigation could not determine many of the root causes of these errors, which often developed over several claim years.

Determining the causes of the errors required longitudinal research, which was the basis of Phase 3 of this research. It was argued that in-depth longitudinal analysis of single claims would provide insight on the nature of these errors, and that understanding the origin of the errors will further support conclusions for delivery system design characteristics in this context.

The investigation examined in detail the lifespan of 17 error-related claims, thus generating a set of codes of error events. The set of codes was reduced over multiple iterations to produce a final set of 9 error-creation codes:

- Base Data
- Form Population Errors
- Claimant Errors in Form Completion
- Scanning Errors
- System Errors
- WCW Errors

- Non-Claim Cycle Errors
- Processing Cycle Alignment
- Commons Land

These sources of error-creation provide perspective on the most impactful errors for the SPS delivery system. The outcome suggests that in addressing these errors, the organisation expends a significant amount of resource on correcting data errors. While there were some errors created by flaws in the automation systems, these were minimal when compared to the other categories. The conclusions of Phase 3 also discussed the observations on the negative effects of managerial decisions on the performance of the delivery system.

These findings can be used to influence decisions on the characteristics of the delivery system to promote optimal performance for the organisation. This will be discussed in the following section.

8.4.2 Discussion on the data gained from SPS research

The SPS was intensely focused on operational goals of accuracy, efficiency, and timeliness. These goals are generally shared by Mass Claims Processes (see section 2.4.1 'The Guiding Principles of MCPs'). In the following section, the results of all three phases of research will be discussed, beginning with accuracy.

8.4.2.1 Accuracy

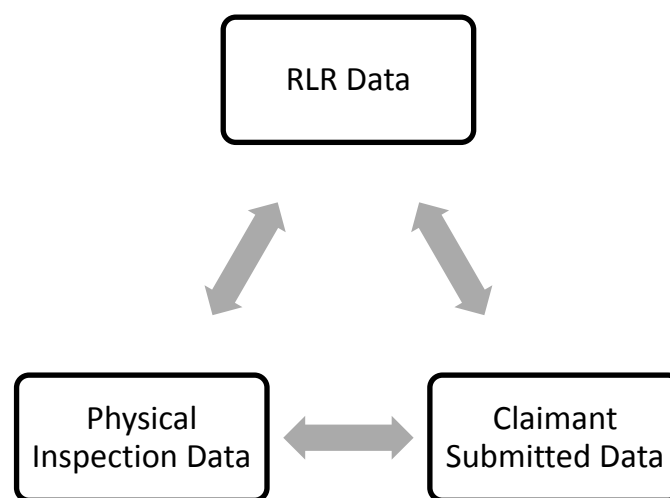
Due to the high standard of accuracy outlined in the rules governing delivery, SPS enforced a very high level of accuracy for all valuations. However, accuracy was observed to be significantly affected by the interrelation of claims. Claims were connected as a result of two potential scenarios: land boundary disputes or entitlement trading.

In claims where data interrelated to other claims, changes to claim data cascaded changes across the group of linked claims. In the larger, more complex networks of claims this also led to a longer cycle of claim processing. Until the network was completely adjusted, none of the claims involved in the network could be considered complete. Payments to any single claim could not be accurate until all claims involved in the connection had been successfully

processed to completion. The connection was created via data used for valuation.

The land valuation data was critical to the ability of a claim to progress through the process. As seen in each of the phases of research, three sets of data on land parcels are used to produce a valuation. The three sets are compared to ensure alignment in land size/use. If any of the data from one of the sets is out of alignment with the others, the organisation must expend resources to create alignment. A model of the alignment concept, originally discussed in chapter 6, is shown in Figure 6.15, above for ease of reference.

Figure 8.5 - Land Parcel Data Alignment Model



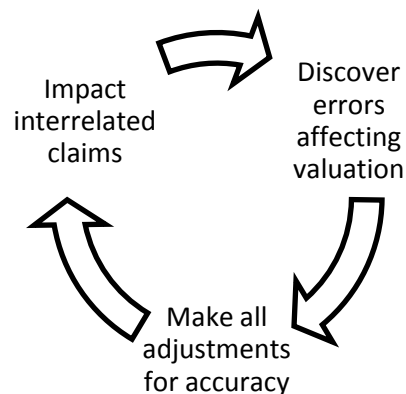
All claim data alignment errors had to be rectified in order for the claim to progress. If rules dictate high levels of accuracy, accurate data used in the calculation is mandatory. In the case of the SPS illustrated above, inaccurate data was found in each of the three data sets. During the course of the research, adjustments were made to all three data sets. Inspection data and claimant-submitted data potentially changed multiple times within any claim year, and the RLR data was changed at least once a year for a subset of claims.

Each time a data set changed, the IT system would automatically raise an error on all the related claims' land size data. This would require manual intervention from a worker to clear the error for a claim to progress toward completion. If the changes were found to impact past claim years, all affected claims would

undergo multi-year correction. This cycle was driven by the high level of accuracy underpinning claim valuation over the life of the claimant; not simply for a single year. There was no allowance for forgiving past year adjustments, which would have saved both time and effort.

The above discussion about the impact of high demanded levels of accuracy in SPS can be summarised by Figure 8.6, which illustrates the reinforcing cycle which exists in this scenario:

Figure 8.6 – The cyclical impact of high levels of accuracy in SPS



In summary, a relationship appears to exist between high demands of accuracy, data quality, and process rigidity/fluidity:

- Data quality – at least one set of data must be considered ‘accurate’; the standard against which the other data sets will be judged to determine accuracy. Without such a set, a constant pursuit of accuracy is created.
- Process rigidity/fluidity – the more accurate the data used for valuation, the more rigid the treatment process can be in utilising automation; conversely, poorer-quality data requires analysis and interpretation in a more fluid process.

As the degree of rigidity/fluidity is a multi-dimensional construct, it is helpful to recall that this characteristic includes such design characteristics as: the degree of worker discretion, degree of customer contact, worker skill-level, and degree of automation.

8.4.2.2 Efficiency

Efficiency for the organisation was earlier defined as a measure of the manpower resource consumed in treating claims to completion. It is clear that efficiency can be readily linked to other measurements.

Based on the observations of the SPS process, the relationship between efficiency and accuracy is inversely proportional. As SPS attempted to become more accurate in its valuations, efficiency levels dropped. This is evidenced by the significant effort observed in the organisation's attempts to achieve high levels of accuracy in valuations through the activities of entitlement corrections, under- and overpayment adjustments, inspections, multi-year corrections, and standard error correction. Error correction was performed by all claim workers on all claims and it comprised 65% of the organisation's resource consumption, according the Chief Operating Officer.

These activities consume resources in order to increase accuracy to the meet the level set in the rules governing the process. As resource is consumed to increase accuracy, efficiency levels are reduced.

According to the system design literature, increased levels of automation could positively affect efficiency. However, automation in information-centric delivery systems requires reliable data in order to produce accurate valuation, as discussed above. Without reliable data, error-creation escalated which gave the false appearance that the IT system was promoting inefficiency.

Finally, Phases 2 & 3 confirmed managerial decision-making contributed to inefficiency in claim treatment through frequent changes in error resolution procedures, and inadequate communication of those changes to workers. Workers were required to adhere to a set of frequently changed instructions which detailed the approach to common error resolution. This was evidence from Phase 1 which showed the level of worker discretion to be very low, instead relying on a strict set of instructions for error resolution.

It follows that if the workers were given more discretion in task resolution, the volume of rework required from changes in error resolution procedures would not be required. The reduction of rework increases efficiency levels.

8.4.2.3 Timeliness

The rules guiding the SPS delivery system were very clear about the time frame for treatment of submitted claims. The application window closes on 15 May and the final payments must be made by 30 June of the following year. This gives 13.5 months to treat the final set of 106,000 claims. Claim volume is also a factor which affects the scale of the delivery system. As claim volume increases, several organisational responses can be expected to address this new demand (given the time frame remains unchanged.) Additional resource could be employed to ensure the timely treatment of the larger set.

A second, more impactful option would be to relax the accuracy demands on the delivery system; for both valuations made across claim years and for the valuation within the most current claim year. This equates to the provision of a degree of 'rough justice', which is typically associated with Mass Claims Processes. Delivering 'rough justice' would allow the organisation to further automate decision-making, using worker intervention only to resolve the more complex claim calculation errors. This assumes the use of the same problematic sets of data used by the organisation described in the chapters above.

Relaxing the accuracy demands would allow the organisation to make payments which would only require adjustment if the amount were above a published and accepted threshold. However, adjustments in-year would not be necessary if the entire set of claims is completed on time. Relaxing the accuracy demands in this way would also allow the organisation to increase worker discretion in claim treatment. As discussed above, this would have the effect of reducing the time and effort required to perform valuations.

8.5 Summary of SPS findings

In summary, Phase 2 and Phase 3 showed that the SPS failure to meet goals on accuracy, efficiency, and timeliness stem from an overly restrictive set of rules governing the delivery system. The high demands of accuracy required highly accurate data for valuation which the organisation did not possess. In order to improve the accuracy of the data, the organisation was required to

expend extensive resources. Such an expense would have forced the organisation to miss targets on efficiency.

To adapt, the organisation used flawed data in order to meet timeliness goals. This resulted in the creation of a high number of data alignment errors, as described in Phase 1, which required resolution in order to meet accuracy targets. Given the rigidity of the delivery system that forced workers to comply with a strict procedure, the error resolution effort was extensive and repetitive. The repetition was caused by frequent changes to error resolution procedure, which caused rework in order to meet stringent accuracy standards.

Phase 2 of this research clearly showed that multi-year corrections and entitlement divisions and transfers further compounded delays. These created highly complex, multi-year, interrelations of claimant data requiring adjustment. This highly complex work was given to workers drawn from the organisation with no specialist training, who were forced to learn on-the-job.

Phase 1 determined that the design of the delivery system was intended to bear the set of characteristics of a 'connected line flow' or 'mass service' operational archetype; treating high volume with high levels of standardisation. However, given the restrictions of unreliable data, the observations from Phase 3 show that this delivery system required a degree of fluidity in order to meet the organisational goals defining success. Because the organisation accepted the complexity of entitlement division and transfer while having to comply with multi-year accuracy, a need for more highly-skilled workers was created to meet goals on timeliness. This pushed the organisation into a zone of inefficiency.

What becomes clear from the SPS research is that several phenomena exist within information-centric mass claims processes which challenge the positions known to existing research on optimal performance in delivery systems.

1. In MCPs, alignment between the target market, service concept, and delivery system can only be achieved through adjustments to the delivery system. If the mandate and rules are fixed and immovable in the alignment effort, the demands on the delivery system may exceed that which is operationally possible to deliver.

2. Interrelation of claim data creates networks of claims which are mutually-affected by claim data adjustments. These networks can be very complex and require highly-skilled workers armed with a degree of discretion to resolve.
3. Interrelation creates the need to treat all connected claims (the 'Batch of One') to completion before any valuation can be considered accurate. This 'Batch of One' relies on complete valuation to ensure accuracy of decisions for all constituent claims.
4. Alignment between data sources is the driver for efficiency in information-centric Mass Claims Processes. Misaligned data requires resolution, which consumes resource.
5. The use of flawed data or the presence of uncertainty in data used in the primary transformation requires highly-skilled workers, using discretion, to create a final determination which is considered 'accurate' to the organisation.

Phase 1 of the research identified delivery system design characteristics implemented in a MCP, and despite the characteristics aligning to recommendations from the OM literature, the delivery system was failing to meet organisational goals. Discoveries made during Phase 1 revealed that the delivery system spent the majority of its resource resolving data errors. Further understanding of the nature of the errors and the phenomena associated with the creation of these errors was needed to better understand the managerial implications for design in this context.

Phase 2 investigated errors to determine contributing causes. This phase of research adopted a different method of data collection and confirmed observations made in Phase 1. The outcome of this phase provided more detail on the organisational failures on accuracy, efficiency, and timeliness but could not determine the root causes of many errors.

Phase 3 of the research investigated the nature of error creation over the life of a claim. Using a different method to provide greater reliability in research findings, this phase broadly confirmed the findings of Phase 2. Additionally, Phase 3 provided clarity on how the phenomena identified in earlier phases

affected individual claims. This provided insight on how delivery system design characteristics might be adjusted to address the unique needs of a Mass Claims Process.

This research has shown that adherence to the recommendations from the delivery system design literature will not produce optimal performance in information-centric MCPs.

To better understand how the characteristics might be adjusted, a second organisation was observed as a polar case study. The organisation in focus in the second case was considered to have achieved sufficiently optimal performance and achieved its organisational goals. This case will be presented in the following chapter (Chapter 9), and the results will be compared to the SPS results in Chapter 10 – Discussion.

9 Case 2 – The Kosovo Housing & Property Directorate (HPD)

This chapter will first present an overview of the second case organisation, its mission, and its stakeholders. Section 9.2 will discuss the rules which governed the process, with additional focus on the targeted levels of accuracy and efficiency. This will be followed in Section 9.3 by observations on the claims treatment process in the organisation. The overall structure of the '*operate process*', the organisational delivery system, will be presented through a series of models in Section 9.4. The models will be used to draw out the relevant set of characteristics of the delivery systems which will be presented in Section 9.5. A brief summary of the case will conclude this chapter in Section 9.6.

The research method for this case reflects the approach used for Phase 1 of the first case. This approach was discussed in Chapter 5. The data for this chapter was gathered in two ways. Secondary data was gathered from historical documentation, official publications, and archive data from the HPD, the Housing and Property Claims Commission (HPCC), and from the United Nations (UN). All relevant documentation from the official proceedings of the HPD was produced in English as the official working language of the Directorate. Primary data was gathered from interviews with the former Head of the Legal Department of the HPD, Dr. Charles Ehrlich. These interviews were conducted in English, Dr Ehrlich's native language, at his home in Vienna, Austria.

The interviews with Dr. Ehrlich focused on gaining understanding of the structure of the delivery system and the related characteristics. As is a strength of the case study method, these will be compared and contrasted against findings from the first case for the purposes of drawing stronger, more robust conclusions (Yin, 2013). Mitigating actions were taken to address the potential weaknesses associated with the use of a single perspective. To mitigate against the potential bias of the respondent's personal opinion and the unintentional bias of the interviewer, the interviews focused on objective outputs in the form of the delivery system models and related characteristics.

Additionally, it is acknowledged that multiple interviews from different subjects would provide greater assurance of the accuracy of the results. However, as

the Head of the Legal Department, Dr. Ehrlich held responsibility for the operation of the claim treatment process for several years, which provides a reasonable assurance of accuracy of the representations produced.

Following the same protocol as the first case, the models of the claims treatment process were created from the interviews, then returned to the subject for review and verification. Adjustments and additions were made to the models in a follow-up session until the subject verified the accuracy of the representation.

9.1 Overview of the Organisation

The Kosovo Housing & Property Directorate (HPD) was established in aftermath of the conflict in that region in the early 1990's. The organisation was created to deal with the number of property rights issues created by the armed conflict between Serbs and Albanians. The history of the region, as well as the long and troublesome nature of the conflict between Serbs and Albanians, are not of direct importance to this research and will be summarised by the following abbreviated history of the sequence of events leading to the creation of the organisation.

The regional crisis which necessitated the creation of the HPD was sparked by an uprising of Serbian nationalism, led primarily by Slobodan Milosevic, in the late 1980's. Albanians living in Kosovo were marginalised by the Serbian government and the vast majority of Albanians had many of their rights stripped, including the right to own property. As violence in the region increased and as the law left them increasingly with no protection, many Kosovar Albanians fled the region, abandoning (among other things) the property which they owned or were legally occupying. After a period of fighting, Milosevic's forces were defeated by a NATO-led coalition, and in 1999 Kosovar Albanians could begin their return to the region under the protection of NATO peacekeeping forces.

Upon their return after the conflict, Kosovar Albanians were faced with the problem that their properties were occupied during their absence. In some cases, the occupants understood they had taken up residence in a property unlawfully; in other cases, the occupants felt they had a legal right to occupy the

property. This problem was further complicated by the fact that local government was in disarray, as the existing Serbian government was unseated by NATO forces and very little internal organisation remained. This action left the region without the infrastructure of government and placed it outside the protection of a truly impartial legal system.

To resolve this, the United Nations established the 'Interim Administration Mission in Kosovo' (UNMIK) as a transitional quasi-government. UNMIK regulations held the rank of law. To assist in the return of property and housing occupancy to pre-conflict rights owners, UNMIK Regulation 1999/23 (attached as Appendix L) was adopted which established the HPD. Approximately one year later, UNMIK Regulation 2000/60 (attached as Appendix M) was adopted confirming the Rules of Procedure & Evidence for the HPD.

The HPD was originally organised and operated by the United Nations Human Settlements Programme (UN-HABITAT), receiving funding from Kosovo taxpayers and the international community; primarily Norway, the United States of America, and Switzerland. The goal of the organisation was to assist in the return of property occupancy rights to pre-conflict rights owners. In 2002, after several years of operation under UN HABITAT, the HPD was completely restructured to be given autonomy. The primary reason for the restructuring was the estimated length of the process under the direction of HABITAT. Estimations for completion under the UN HABITAT structure was estimated for the year 2111. This was unacceptable to the international community and related stakeholders. Funding for the operation was renewed on a rolling basis. In essence, the HPD had to continue to make reasonable progress against targets to ensure continued funding for the subsequent operating year. The organisation was restructured and restarted. The new organisation completed its task and closed within 4 years, having been considered a success by its stakeholders (NORDEM, 2006: 1).

From 2002, the HPD had a staff levels hovered between 220-250 people; approximately 10% of which were international. The employment of locals provided the HPD with many benefits: ease of regional communications;

familiarity with the geography and layout of the region; and familiarity with local culture, all of which the HPD had to consider during normal operations.

9.1.1 The mandate

The goal of the organisation was to determine the person(s) entitled to rightful occupation of properties involved in claims. The process was not intended to grant property rights or to determine ownership. Thus, claimants to the process were 'occupants' and not necessarily 'owners' of the property. The organisation aimed to return the claimants to a state of residency which existed prior to any unjust historical discriminatory actions. The conceptual objective for the mandate was simply: what the claimant had prior to the conflict, they will have after the claims process.

In some cases, the historic occupants of the property may not have had the right to be there, but were not illegally occupying the property. An interesting example of this concerns the activity of the Roma community. Members of the Roma community occupied properties in Kosovo prior to- and during the conflict. The occupation of these properties may have been adversarial, but the owners or local government had not, for whatever reason, evicted the Roma. During the conflict, the occupying Roma fled the property under fear of threat by Serbian militants/loyalists. During the claims process, the Roma were allowed to claim occupation of the aforementioned property, producing sufficient evidence of that occupation. The decision of the HPD fell in favour of the Roma occupants, stating that the goal of the HPD was to provide restoration to the prior state (e.g. '*what they had, they will have again*'). The HPD further stated that while the Roma were occupying the property adversely, it was the State's responsibility to address the legality of the occupation. This restoration concept behind the decision lay at the heart of the organisation's mandate.

The HPD mandate was outlined in Regulation 1999/23. As stated above, the regulation established the HPD and describes its many goals. However, the part of 1999/23 which specifically refers to the processing of claims comes in section 1.2:

§1.2) As an exception to the jurisdiction of the local courts, the Directorate shall receive and register the following categories of claims concerning residential property including associated property:

(a) Claims by natural persons whose ownership, possession or occupancy rights to residential real property have been revoked subsequent to 23 March 1989³ on the basis of legislation which is discriminatory in its application or intent;

(b) Claims by natural persons who entered into informal transactions of residential real property on the basis of the free will of the parties subsequent to 23 March 1989;

(c) Claims by natural persons who were the owners, possessors or occupancy right holders of residential real property prior to 24 March 1999⁴ and who do not now enjoy possession of the property, and where the property has not voluntarily been transferred.

The Directorate shall refer these claims to the Housing and Property Claims Commission for resolution or, if appropriate, seek to mediate such disputes and, if not successful, refer them to the Housing and Property Claims Commission for resolution. (UNMIK, 1999, §1.2)

It must be noted that this mandate does not describe the operational process by which the claims are to be resolved. Additionally, the mandate does not offer any rules by which that process must abide. The mandate states, in section 2.6, that the rules must be created and approved by the Commission.

³ On this date the Kosovo Assembly approved the abolition of the province's autonomous status and the area was subject to a new Serbian constitution, creating further separation and tensions between local Serbs and ethnic Albanians.

⁴ Date of the commencement of NATO-led airstrikes in the region which marked the end of the Milosevic reign.

§2.6 The Special Representative of the Secretary-General shall establish by regulation the Rules of Procedure and Evidence of the Commission, upon the recommendation of the Commission. Such rules shall guarantee fair and impartial proceedings in accordance with internationally recognized human rights standards. In particular, such rules shall include provisions on reconsideration of decisions of the Commission.

This separation between mandate, rules, and process structure fully agrees with the description of best-practice offered in the MCP literature (see Chapter 2).

This mandate also distinctly separates the HPD from the Housing & Property Claims Commission (HPCC), which was a three-person panel charged with reviewing and approving the decisions produced by the Directorate.

§2.1) The Housing and Property Claims Commission (the “Commission”) is an independent organ of the Directorate which shall settle private non-commercial disputes concerning residential property referred to it by the Directorate until the Special Representative of the Secretary-General determines that local courts are able to carry out the functions entrusted to the Commission. (UNMIK, 1999)

This panel was described in the regulation as comprised of experts in the field of housing and property law who should similarly be competent enough to hold judicial office. The importance of the distinction between the HPD and the HPCC will be demonstrated later in this research when discussing the structure of the delivery system of the HPD.

In summary, the mandate demands that the HPD adjudicate claims concerning residential property which were submitted from a clearly defined set of potential claimants. Recalling the constructs discussed in the review of the delivery system design literature, this was described as the ‘*what*’ will be delivered, and the ‘*who*’ to whom it will be delivered. Claims concerning ownership, possession, or occupancy rights of residential property were to be received and registered, then resolved with the approval of the Commission. Those

claimants who are outside the defined parameters of eligibility were automatically excluded.

9.1.2 The organisation as a Mass Claims Process

From the description of the organisation and its mandate, several points can be drawn to support characterisation of the organisation as a Mass Claims Process. The MCP literature described the necessary and sufficient conditions:

- More than 5,000 claims
- Respondent is a sovereign state or corporation
- Large group of claimants opposite a single respondent or a small group of respondents
- a set of claims sharing issues which are sufficiently similar so that it is more efficient to adjudicate the claims in a single claims process than in a series of individual proceedings

Table 9.1 compares the characteristics of the organisation against the requisite conditions presented by the mass claims process literature.

Table 9.1 - Conditions - HPD as a mass claims process

MCP Literature	Kosovo Housing & Property Directorate	Condition met?
Claim volume > 5,000	29,000	Yes
Respondent is a sovereign state or corporation	Respondent is a sovereign state, Kosovo	Yes
Large group of claimants opposite a single respondent or a small group of respondents	Large group of claimants opposite a single respondent (see above two points)	Yes
A set of claims sharing issues which are sufficiently similar so that it is more efficient to adjudicate the claims in a single claims process than in a series of individual proceedings	Occupants of properties filing claims of restitution based on a set of accepted issues; the claims are adjudicated in a single process	Yes

Through this comparison it is clear that the HPD meets the necessary and sufficient conditions to be considered a Mass Claims Process as defined by the MCP literature.

9.1.3 Goals of Efficiency & Accuracy

Striking a balance between efficiency and accuracy was a primary concern in the creation of the HPD. The first page of the document which created the HPD describes the desire to ensure that both are considered as guiding principles. The resolution states that the organisation was required “*(f)or the purpose of achieving efficient and effective resolution of claims concerning residential property*” (UNMIK, 1999: 1). This was mentioned prior to any discussion of the mandate. However, no definition of either “efficient” or “effective” in specific operational terms was provided, nor was any measure for success provided. Acceptable efficiency was determined by the stakeholders or funding bodies of the HPD, discussed in Section 0, above. If the funders did not feel the HPD was efficient enough, funding would have ceased.

Effectiveness related directly to the organisation’s ability to achieve the mandate, which was to process the claims received. The claims resolution process was required to “*elaborate the law relating to residential property in Kosovo*” (UNMIK, 2000: 1) from which it can be derived that any notion of effectiveness must also comply with the law. Each claim decision rendered must also be accurate to the degree that it must ultimately accurately reflect the law.

9.1.4 Funding Model

The HPD focused entirely on property-based claims. The majority of the decisions produced by the organisation were centred on the right of occupation, not financial compensation. However, the rules provided for compensation in those cases where the right of occupation could not be restored. The funds used to pay the compensation decisions were not part of a traditional settlement fund, which is typically divided equally among successful claimants. As a result, the funding model decision of ‘single pot’ or ‘bottom up’ (see chapter 2) does not apply to the HPD. Removing the monetary relationship between

claimants removed the 'Batch of One' interrelationship of the claims, in that total amount available to successful claimants was not influenced by the overall number of successful claimants.

9.2 Rules governing the HPD & HPCC

Approximately a year after the issue of Regulation 1999/23 establishing the HPD, UNMIK produced the rules of procedure and evidence governing the organisations. These were contained in Regulation 2000/60 (UNMIK, 2000). These rules detailed a significant number of considerations for the establishment of a delivery system. Several of the more impactful areas discussed include:

- the evidentiary standard (§ 21)
- the centralisation / decentralisation strategy (§ 17.8)
- the use of automation to support delivery (§ 19.5c)
- the use of standardisation techniques (§ 19.5a)

These will be discussed and explored in the following section and in section 9.3 below.

9.2.1 Evidentiary Standard

The evidentiary standard was described in section 21 of the rules governing the process. The organisation may “*be guided but is not bound by the rules of evidence applied in local courts in Kosovo*” (UNMIK, 2000: §21.1). This language was intentionally set in such a way as to give a starting point for evidence, but gives freedom to the HPD to be flexible in the evidence it accepted. The HPD was permitted to “*consider any reliable evidence, which it considers relevant to the claim, including evidence presented by the Directorate concerning the reliability of any public record*” (UNMIK, 2000: §21.1). This has implications on the discretion level afforded to workers involved in claim treatment. Employee discretion will be discussed in further detail in section 9.5.1 below.

Claimants were invited to submit supplemental materials in order to better evidence their claim. However, as was the case for those MCPs relating to war

or natural disaster, it is common for claimants to not have official records at their disposal to support their case. This was found to be true in the HPD. Due to the hostile nature of the conflict in the region, many claimants would not have had the relevant documents which could have clearly proved their rights to the property. This evidence was often abandoned or destroyed during the conflict. As a result, the claimants were given more freedom to submit documentation not normally admitted into legal proceedings.

The HPD required evidence of the claimant's occupation of a property where the occupation was lost in the ten years between 23 March 1989 and 24 March 1999, and evidence to support the claim that the occupation was not illegal. The rules governing the process explicitly state that claimants should submit documents (original or certified copies) relevant to the claim. These documents may be in the possession of the claimant or may be obtained from a public record (UNMIK, 2000; §8.2 p.15). There was no other guidance to further define 'acceptability' of documents.

These observations establish the evidentiary standard for the HPD as being flexible enough to allow the worker to use discretion within the bounds of legality. In this regard, the skill of the worker must inform a decision on the trustworthiness of the evidence provided to the claims process.

By contrast, were a higher evidentiary standard adopted, a higher level of evidentiary integrity would also be required. This significantly limits worker discretion on allowable evidence. The claimants would have been compelled to produce certified original documents to support their claims. Given the destruction which accompanies armed conflict, a high evidentiary standard would have clearly disadvantaged the majority of the claimants. Thus, observations show that the evidentiary standard for the HPD was relatively low.

9.2.2 Observations on efficiency & effectiveness

The over-arching measure of success during ongoing operation was, according to interviews, the approval of the donors who funded the process. Donor approval was influenced by progress gained against the completion of the body of claims. For the HPD, efficiency was defined as the resolution of claims within

a reasonable time (NORDEM, 2006: 51). One could challenge the unspecific nature of the metric, because there was no definition to what constitutes a 'reasonable time'; nor was there any specific information concerning related costs associated with the process. This 'value for money' determination was left to the stakeholders.

As mentioned above, progress against targets was reviewed regularly and judgements on continued funding were undertaken at regular intervals. Staff productivity was measured by weekly throughput. Rather than focusing on individuals, the measurement centred on teams of lawyers and field operations teams. The heterogeneous nature of the cases meant that the claims could not be considered as equally challenging for the workers to resolve. More difficult cases were weighted by the Head of Legal after considering the complexities of those cases. The metrics for each team were adjusted as a result of the weighting.

The organisation compiled statistics against completed and in-progress claims by the teams of workers in the various regions. This gave the organisation both high-level statistics and more granular statistics for productivity. Table 9.2 reflects the number of claims in each category and the region in which the property claimed was located (HPCC, 2007). Claim categorisation is discussed in section 9.4.2.

Table 9.2 - HPD claims resolved by region and category

Region Category	Gnjilan	Mitrovica	Pec	Pristina	Prizren	Total	% of total claims
A	112	203	97	698	102	1212	4.2
B	45	65	57	579	20	767	2.6
C	3617	3542	7975	8293	3755	27182	93.2
Total	3774	3810	8129	9570	3877	29160	100
% of total claims	12.9	13.0	27.9	32.9	13.3	100	

The continuation of funding carries with it an implicit approval of the efficiency of the organisation. The process was considered successful and complete in

2006. Ultimately, the number of claims received by the HPD was in excess of 29,000.

9.2.3 Alternative Outputs - Property under administration

While not specifically in the focus of this research, it should be noted that an alternative outcome of claims processing was available. The HPD had the ability to place any property under its legal administration. With this action the HPD could temporarily take control of the property until a permanent solution for the rights/use of the property was reached. This was not a final solution. If this was the resultant outcome of the processing of the claim, then it was only temporarily employed until the permanent solution could be put in place.

There were several common scenarios where this occurred, which are also outlined in Regulation 2000/60, §12.2.

1. The successful claimant opted to have the occupant evicted, but couldn't (for a valid reason) take possession of the property at the time of eviction.
2. The occupant was evicted, but the successful claimant (for any reason) did not take possession of the property after 14 days.
3. The occupant requests administration of the property and no claim has been filed for that property.

When under administration, the HPD had the right to grant permission for occupancy. The rights of the owner or rights-holder were suspended until the end of the administrative term.

The action of administration was taken after a claim was processed to completion, and a decision was rendered and finalised. Administration actions were then determined based on the conditions present.

For the sake of this research these administration actions fall outside the scope of interest. This research focuses on those processes which render a decision to the claimant about ownership or property rights. Actions, such as administration, which take place after a decision was rendered are outside the area of focus for this thesis.

9.3 Claims processing

The organisation considered the delivery process to begin and end with the claimant. If one was to take an 'end-to-end' perspective, one must observe the process from the act of the claimant filling out and submitting the claim, through to the time when a final decision was returned to the claimant. These boundaries will be used to frame the boundaries of the delivery process for the purposes of this research.

9.3.1 Claim Form

The HPD used two different claim forms over the lifespan of the organisation. The first was developed and distributed before the rules governing the process were written. These first forms requested basic information about the claimant, the disputed property, and the circumstances around the abandonment of the property. From interviews, it was stated that the first version of the claim form was considered irrelevant by staff because it didn't contain a section asking about the claimant's right to the property in the claim; a critical detail for the decision-making process by the legal teams.

The second form was created after the drafting of the rules in the year 2000, and was officially established by UNMIK Regulation 2000/60. The most significant addition was a section which queried the claimant's perceived right to occupy the property. The information provided would be used by the most important step in the adjudication process: rendering the decision to the claimant. However, after the release of the new form there were problems ensuring its use in all cases. As late as 2002, nearly two full years after the release of the new form, some of the regional offices of the HPD were still distributing the outdated first claim form.

Claims to the organisation were collected for three years and seven months, from 15 November 1999 until 1 July 2003. No new claims were accepted after this point. This has implications on the levels of interrelation, which will be discussed in Section 9.4.3 below.

9.3.2 Content and structure of the claim form

Each form was given a unique tracking number (similar to the concept of a serial number) which was printed on the form before distribution. This was so that the claimant could leave the HPD office with the tracking number which could be used for future reference. By comparison to other processes, a tracking number is usually given after the claim is received and officially entered into the organisation's IT system. In this case, it was decided that finding the claimants at a later date might prove to be difficult. As such, it was decided to provide the tracking number to the claimant while they were present to avoid such difficulty.

The claim form for this process was not openly distributed to the public. It was instead distributed to the regions of Kosovo where it was completed by claimants in meetings with representatives of the HPD. The presence of appropriately trained employees during the completion of the claim form did not allow for the presentation of unstructured, inappropriate, or irrelevant data. Importantly, it was at this point that the skilled staff could attenuate some of the variety presented to the delivery system. While skill level is discussed in section 9.5.2, it is important to emphasise the relationship between the skill level of the employee and the design of the claim form. Workers with higher levels of skill could facilitate the collection of relevant data, as well as advise the claimant on what other information would be needed. As a result, the claimant was able to add the appropriate evidence to support their claim prior to submission. This pre-submission work acted as a *de facto* quality control for the inputs rendered to the organisation. This also created a claim which could begin processing immediately, with very little chance of being rejected as invalid in later stages.

9.3.3 Supporting materials eligible for submission

The information submitted with the claim form by itself was not always sufficient to complete the adjudication process. As described in the previous section, claims could also be submitted along with supporting evidence. This evidence could take many forms, as permitted by Regulation 2000/60, §8.2 and §21. Due to the nature of the conflict in the region, local records were sometimes

destroyed. In other cases, claimants may have had to abandon property quickly in order to avoid conflict. As a result, many different types of evidence were submitted by claimants in order to support their claim. Eligible evidence included: utility bills, drivers licence applications, bank statements, and similar documents (Cordial & Røsandhaug, 2009). In those cases where the evidence submitted to the HPD was not an official public document, it was left to the discretion of the lawyer adjudicating the claim to determine if the document was eligible to be included for consideration. This is evidence of workers given a degree of discretion based on their skill level.

Copies of official documents were subject to certification by the issuing authority. In those cases where the issuing authority did not exist or was no longer credible, the HPD was authorised to certify copies of documents for the purposes of adjudicating the claim.

9.3.4 Occupant responses to submitted claims

Once a claim was submitted and officially accepted, the HPD was charged with notifying the occupant of the property under dispute. The occupant (also called the '*respondent*') then had 30 days from receipt of the notice to respond to the HPD. This was called the '*Reply to Claim*'. The response would then be taken under consideration by the lawyer undertaking the adjudication. The response was permitted to include the same types of supporting materials as claims, detailed above.

Both the interviews and organisational documentation described the 30 day limit for response as a means to help reduce the amount of time a claim might take to complete processing. If the respondent was allowed a longer time frame to reply, then the claim would clearly take longer to complete. The time frame of 30 days was considered both reasonable and realistic.

If any reply was received, copies were circulated to the other parties involved. Those other parties were given an additional 30 days to respond. The time started once the other parties were notified of the *Reply to Claim*. Such replies, and any subsequent additional replies, had the ability to stretch the duration of the processing of the claim, but the length of delay was limited to a total of 60

days. This limitation reduced long-term delays in processing potentially contested claims.

9.4 Representations of the process

The following section presents the visualisations of the delivery systems at the HPD as described and verified by the Head of Legal for the HPD from 2002-2005. These models represent the process as it existed when the organisation was successfully meeting its operational targets.

Figure 9.1 presents the high level model of the delivery system for the HPD. The modelling technique is the same as used in the first case; illustrating the inputs required from outside the system, the outputs created which extend outside the system, and the key mechanisms which performed the transformational activities. The complete set of models can be found in Appendix N – HPD Delivery System Models.

Figure 9.1 – High level delivery system model for the HPD

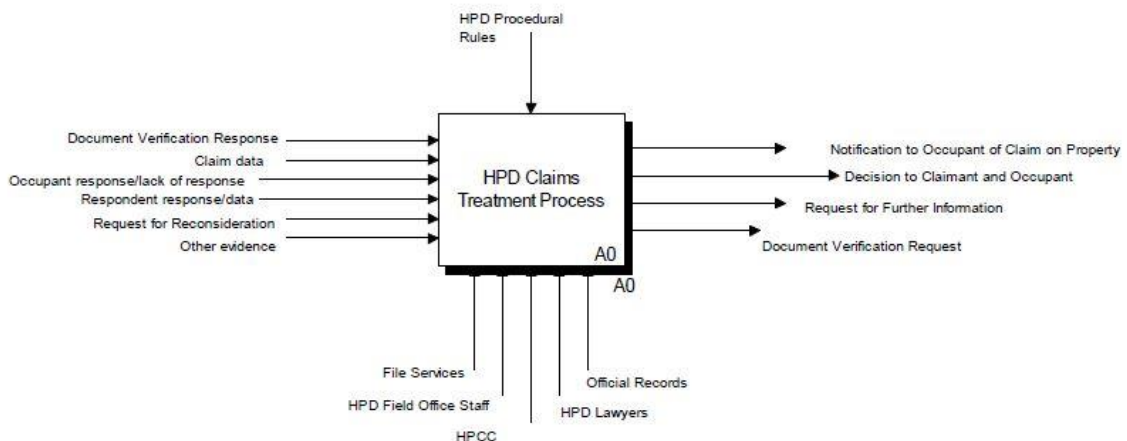
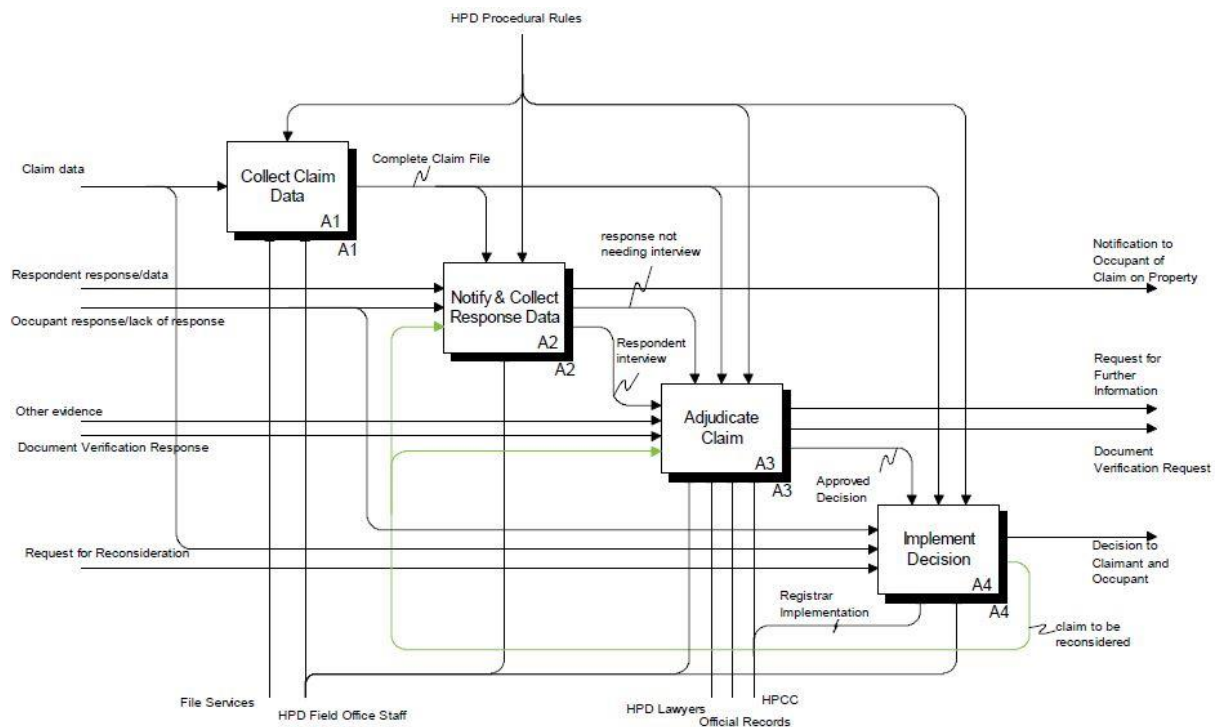


Figure 9.2 contains the representation of the sub-processes which comprised the HPD Claim Treatment delivery system.

Figure 9.2 - HPD delivery system decomposed into sub-processes



The models present a view of the organisation which generally resembles the process steps found in the SPS: data was collected, the information was analysed, and a decision was then produced and communicated to the claimant. Significant differences between the two delivery systems will be described below.

In the model shown in Figure 9.2, claimant information and other relevant claim data was collected in the first sub-process (A1), however the difference with the SPS is that all claim data collection was facilitated by HPD field office staff in the regions in which the claimant was located. Once data was collected, a complete claim file was created and stored in the region in which the claim was set. The official reception of the claim triggers the respondent notification process described in the section above. This second sub-process (A2) also allows for the collection of additional claim-related data, which was also facilitated by the HPD field office staff. All additional data and interviews with respondents are then attached to the claim file for the HPD lawyers to adjudicate (A3). The decision was sent to the Housing & Property Claims Commission (HPCC) in the HPD main office in Pristina for review and final

approval. The HPCC was the three-person panel which reviewed decisions to ensure compliance and quality. Once approved, the decision would be handed back to HPD to implement the decision; installing the rightful occupant in the claimed property.

Figure 9.3 – HPD Sub-process A1 – Collect Claim Data

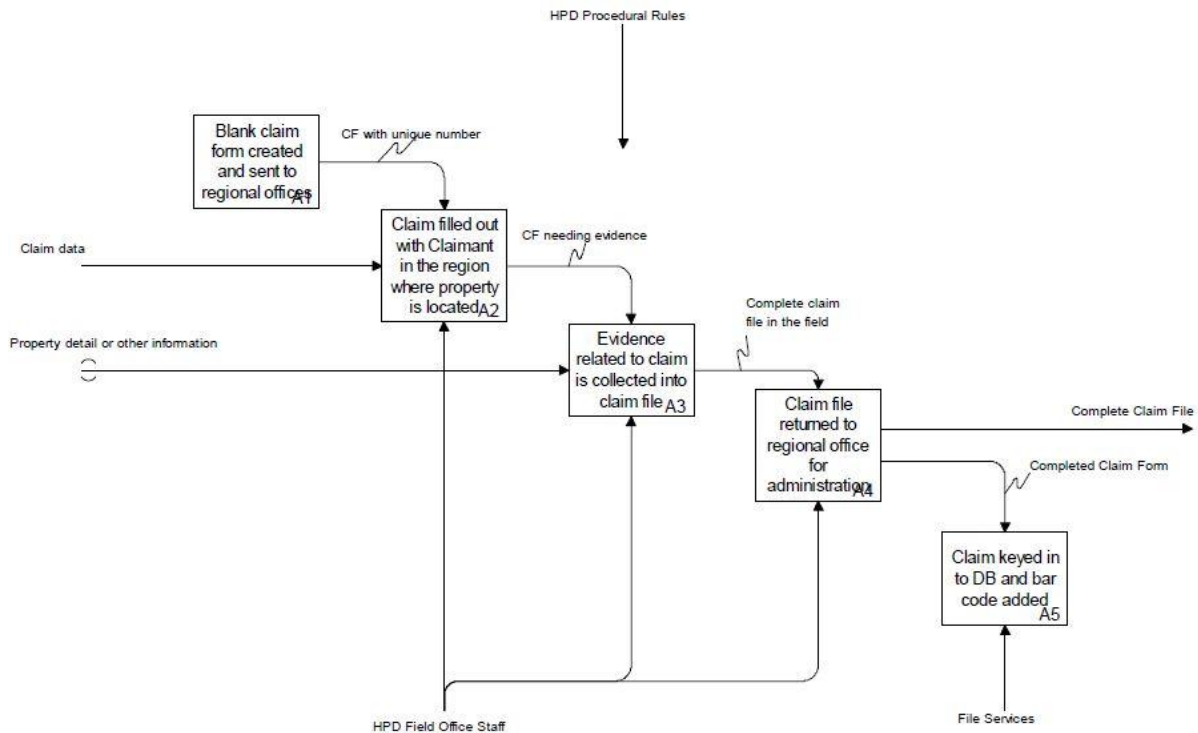


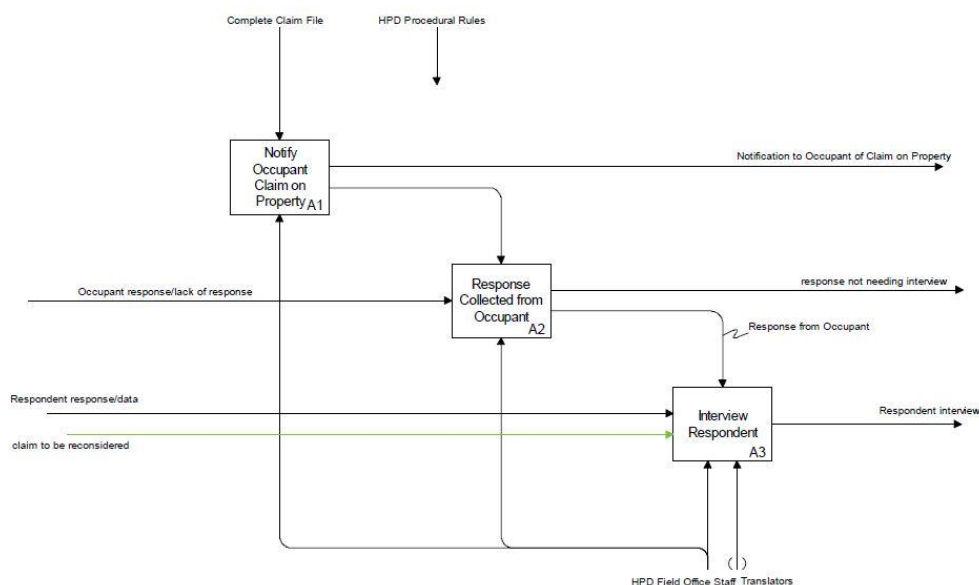
Figure 9.3 above reflects the A1 sub-process ‘Collect Claim Data’. This model shows how the uniquely numbered claim form was used by the HPD field office staff to collect the relevant data from the claimant to create a completed claim. The involvement of the field office staff creates a claim form which was validated during its creation. The staff member was skilled enough to guide the claimant and provide immediate feedback about the information and evidence required. In this way, no superfluous or irrelevant content was submitted which lawyers will be required to review in later stages. Field office staff were tasked with rejecting spurious or frivolous claims at this stage as well. File services workers were tasked with data entry in this sub-process; creating an electronic version called the ‘Claim File’.

It was important to note that in the A1 and the following A2, the HPD Procedural Rules are reflected in the model, but unattached to any individual activity or task box. This was a means of separating the indirect guidance of the rules from the

strict procedural guidance provided for other activities and tasks. In the A1 and A2 sub-processes, the rules provide general guidance about how these activities occur, such as who was tasked with the responsibility; reflected here by the HPD field office staff, File Services (admin) and translators. The rules will also provide general guidance about where these activities and tasks take place; each of the five regional offices delivered the same approach (see section 9.5.4.1, below for further discussion on the regional offices). In the sub-process reflected in A3 and A4 below, the HPD Procedural Rules control arrow connects directly to several activities and tasks. These indicate a very strict procedural approach to that specific activity/task. This will be described where appropriate.

The A2 sub-process, shown in Figure 9.4 below, shows the required activity of communicating with the occupant of the property in order to gain their response to the claim. This set of activities had the potential of delaying the claim if the occupant of the property (also called the 'Respondent') waited the allowed 30 days before submitting a response. This sub-process provides further illustration of the amount of direct customer contact which occurred prior to the analysis and decision-creation stage. The amount of contact with claimants and respondents was designed to ensure that the relevant data was collected and reviewed for accuracy prior to submission to the lawyers who adjudicate the claims.

Figure 9.4 – HPD Sub-process A2 – Notify and Collect Response Data



If the lawyer analysing the case has need for further evidence or clarification of existing evidence, the rules allowed for supplemental collection or clarification (in the A3 sub-process). According to the interviews, the staff lawyers would write a letter to the claimant or respondent requesting information. Responses would be received and verified by field office staff before entry into the electronic claim file. There was intended to be no direct contact between the lawyer and the claimant/respondent during the entire A3 sub-process. The lawyer would then consider the new information in the 'Assess Claim' step of the adjudication, shown here in the A1 activity.

Figure 9.5 – HPD Sub-process A3 – Adjudicate Claim

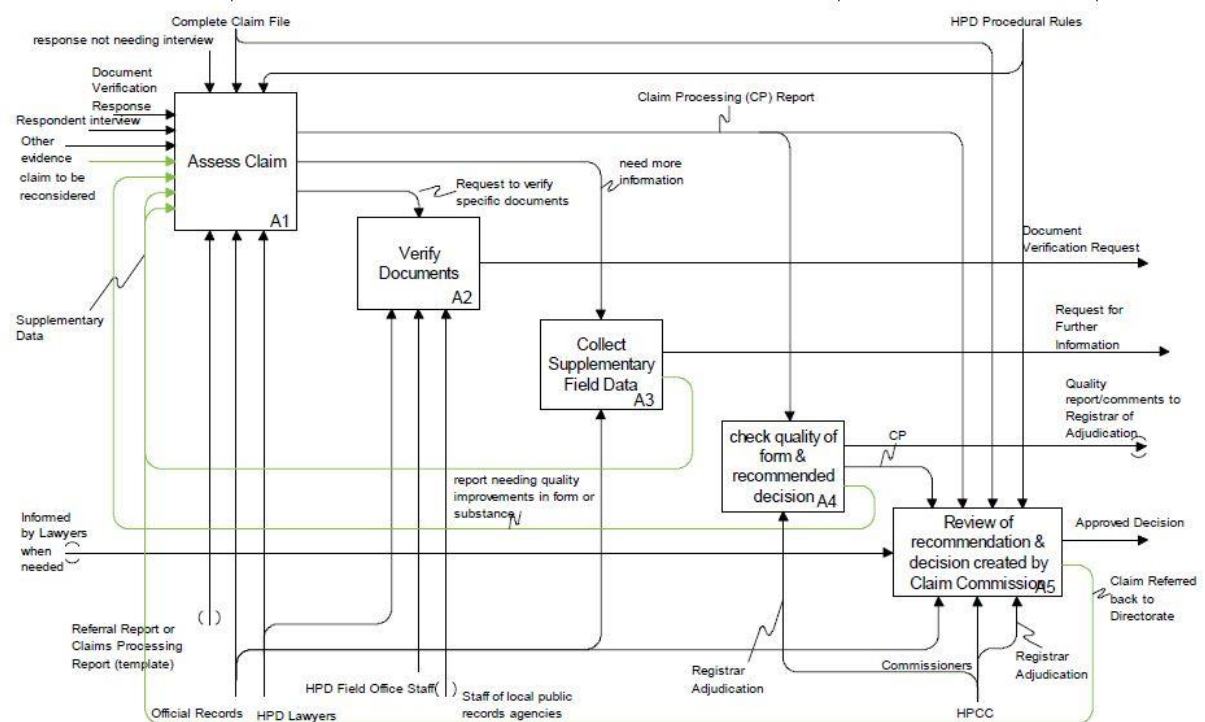
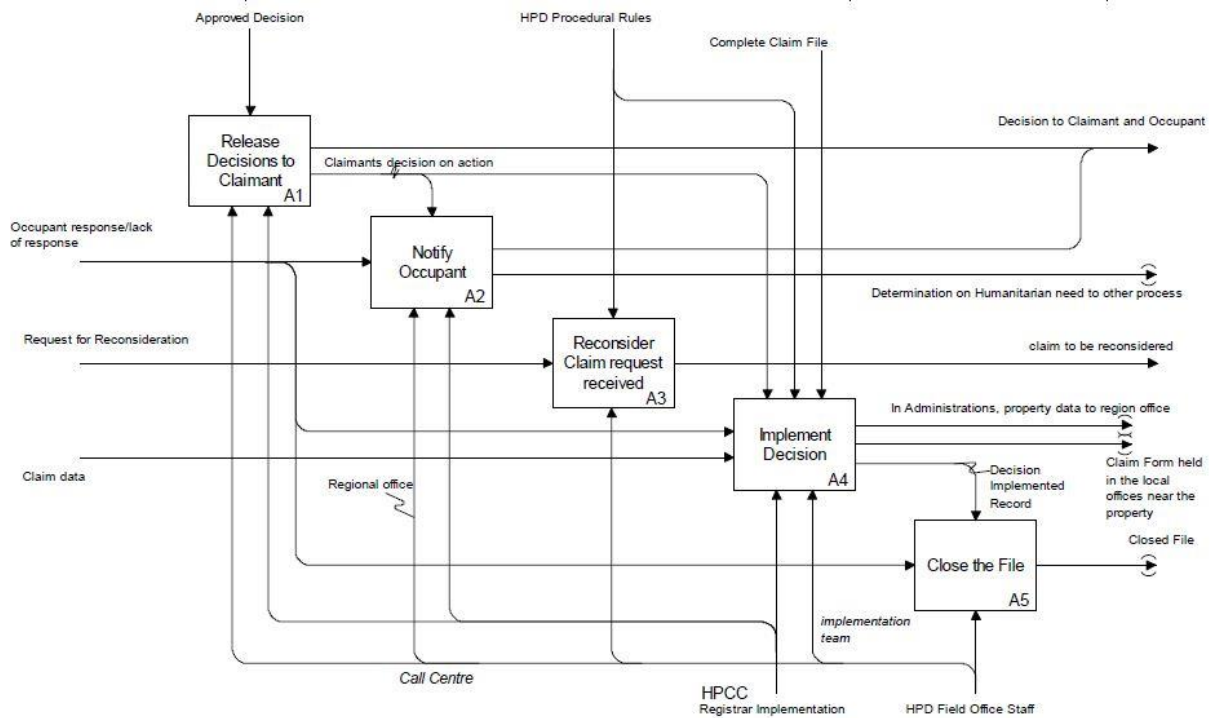


Figure 9.6, below illustrates the decision implementation stages. The lawyer's assessment of the claim would result in the recommendation of a decision. The recommended decision could either reject or award claimed occupancy rights. A sample of recommended decisions were reviewed for quality control, then sent to the HPCC Commissioners for approval. The Commissioners would be sent a packet of recommended decisions along with a descriptive report of the batch of decisions compiled by the Registrar Adjudication. The report highlighted the potential legal implications of the decisions (e.g. precedent setting, number of claims grouped by characteristics, particularly problematic

claims) for the consideration of the commission. For each claim, the A3 sub-process created an output called an 'Approved Decision'. The creation of the approved decision triggered the start of the A4 sub-process, illustrated in Figure 9.6 below.

Figure 9.6 – HPD Sub-process A4 – Implement Decision



The A4 sub-process describes the implementation stages of claim treatment. Once the decision was approved by the commission, the claimants and respondents were notified. Both parties had access to the appeals process (herein called 'Reconsider Claim') managed by field office staff, which sent the claim back for a second assessment along with the reasons for reconsideration. Once notification was acknowledged by the claimant, the Registrar Implementation would work with the implementation team from the respective field offices to remove the occupant and install the successful claimant. An official record detailing the implementation would be attached to the claim file, and the file would be closed.

With the process illustrated above, observations on the focal constructs and characteristics for this research will be presented below

9.4.1 Use of IT as a supporting tool

The rules governing the HPD were vague on the area of use of IT as a supporting tool. The regulation merely granted the organisation the ability to “*use computer databases, programs and other electronic tools in order to expedite its decision-making*” (UNMIK, 2000: §19.5 (c)). During the HPD’s first phase of the existence where UN HABITAT organised and operated the HPD, the interviews revealed minimal use of IT as a supporting tool. Databases and other technology-supported workflows were not in place. Stakeholder reports show that the organisation was very slow to make progress against operational targets for completing claims in a timely manner. Estimates produced by the management of the HPD in this early phase put the completion date decades away (NORDEM, 2006).

After reorganisation, the introduction of technology-based tools assisted the flow of claims through the delivery system. This included such tasks as claim tracking (both in progress through the process and tracking of the physical claim folder), document management, decision support, and knowledge/precedent management.

The use of automation to support the delivery system facilitated the adjudication process. The movements of forms, letters, and decisions were carefully tracked, and the progress toward a decision could be checked at any time. The ability for the HPD lawyers to have to hand the requisite documents and decision support information reduced the overall processing time. The technology facilitated claim completion by reducing the amount of time spent waiting for the appropriate materials to be delivered.

9.4.2 Batching and Grouping techniques

The use of IT was critical in identifying claims with similar characteristics, this is clear evidence of the presence of ‘Grouping’ which promotes efficiency in claim processing by grouping claims based on their characteristics and the challenges they present (Holtzmann & Kristjansdottir, 2007). These claims could be settled in sweeping decisions which applied to batches of similar claims.

In those cases where the claim was judged in favour of the claimant, the claimant was then granted a remedy to the loss of possession. The remedy could change, but it must abide by the limited choices offered by UNMIK Regulation 2000/60. The remedies fell under three groups (HPCC, 2007: 60-62):

- Category A claims
 - In this case, the claimant had valid occupancy and/or ownership but restoration of the property right was no longer possible for any reason (i.e. ownership had passed several times, and the current occupants had a reasonable legal right to occupy the property.) Claimants in this category had a much more difficult case to prove, and required 'perfected occupancy rights.' Those claimants rejected rights in this category were left with no remedy by the HPCC, but were offered further opportunity for compensation through a separate agency.
- Category B claims
 - In this case, the claimant had acquired ownership of the claimed property by informal transactions. For such claims, the HPCC ordered that the change of ownership be registered in the appropriate manner. This left the local courts with the decision on whether the transaction was valid, which would then leave one party with full rights to the claimed property.
- Category C claims
 - This was by far the largest category of claims; approximately 85-90% as estimated by the interview subject. These claims described the scenario whereby the claimant had lawful right of occupation and/or possession of the claimed property, and there were no conflicting claims on that property. In these cases, the property was repossessed from any existing occupants and legal right to occupy was returned to the claimant.

It should be noted that while the categorisation was used to assist in understanding the nature of the work required for a particular claim, the categorisation was also relevant to the nature of the remedy available to the

claimant. Groups of claims received standardised remedies in order to increase efficiency of claims processing. A standard judgement was also able to be rendered over a set of claims with similar judgements; this created a batch. The claims in the batches were approved together in one decision, thus further promoting efficiency in claim treatment. These batches could reach volumes of thousands of claims at a time.

Examples of such batches were:

- **Uncontested** – the current illegal occupants have departed the property.
 - Summary action: the claimant was restored to occupation.
- **Destroyed** – the property was destroyed during the conflict.
 - Summary action: the claimant was entitled to compensation.
- **No Respondent occupying the property**
 - Summary action: the claimant was restored to occupation.
- **Authority permission** – an authority for the property gave permission for the occupants to occupy the property.
 - Summary action: the occupants granted entitlement to remain

9.4.3 Interrelation

Cases of interrelation were observed, which generally centred on two claimants claiming on the same property; or where competing claims claimed the same sub-portion of a property. An example of the first instance; two people submit claims on the same property, both claiming rights based on occupancy. In this case, the attorney adjudicating the claim would have to judge the merits of each case and decide based on the evidence provided. The information on all the claims connected by the interrelation was gathered and reviewed by the adjudicating attorney. Once the body of known claims and relevant evidence was understood and the law consulted, the attorney would render a verdict on possession. The relationships between the various claims and the property would be confirmed or broken.

The most complex cases of interrelation occurred when Category C claims competed with Category A claims. For example, there was a scenario whereby person A fled from their property due to threat of potential ethnic violence, and

was absent for a period of roughly ten years. In that period of time, person B of a different, rival ethnic background purchased the property from the corrupt government in power. As power shifted during the war, the original dominant ethnic group returned, person B fled from the property in question. The property in question was then occupied by a third, unrelated party. Later, both persons A and B submitted claims on the property as they both perceived they had legal right of occupancy and were able to produce documentation to support that claim.

In this type of case, both claims appeared as though they could be treated independently. Both provided substantive evidence and both might have submitted valid claims. It was only through the property that they were linked. If the connection between both claims and the property was not discovered, the first claim to be treated to completion could have been awarded occupancy. The error would only then have been discovered after the second valid claim was treated and the first awarded claimant was notified of the claim on the property they had re-occupied.

These interrelated claims required an in-depth examination of the supporting evidence by the HPD lawyer to determine whose claim had priority, and what restitution the 'losing' claimant deserved to compensate for their valid loss.

In the second instance of interrelation, the competing claims may claim two separate but adjoining properties but create a dispute on the location of the boundary between the two properties; such as a wall separating two apartments that was moved by interim occupants. These cases would require inspections and further scrutiny of the historic documents for the property in question. These cases would use physical evidence to support the decision of the attorney. The decision would confirm one of the claims while denying the competing claim.

Data presented in Section 9.3.1 above showed that no new claims were accepted by the organisation after July 2003. After this date, the final body of claims was set and known to the HPD. This knowledge has the impact of preventing the possibility of the creation of new connections between claims caused by interrelation of claim data. This meant that relationships previously

confirmed or disconfirmed would remain in that category for the life of the claims process.

9.4.4 Postponement

There is evidence from the data that postponement was not a significant factor in the design of the HPD delivery system. The design literature describes the application of postponement as the latest possible start of customised actions of transformation for the customer within the delivery process. In the case of the HPD, the data shows that direct customisation occurred near the beginning of the process in the A1 (Collect Claim Data) sub-process. This placed the decoupling point very near to the beginning of the delivery system. At this point, the only 'build to forecast' work completed was the creation of the blank claim form itself.

The work completed in the A1 (Collect Claim Data) sub-process was performed by HPD field staff assisting the claimant in filling out the form and submitting appropriate evidence. This customised rendering of advice provided the organisational benefit of avoiding the need to check claims for validity after the claim was submitted and received by the HPD. As a result, conceivably every claim that was submitted was considered a valid claim which will be adjudicated.

In this case, the application of postponement strategies, whereby customisation work is delayed to a point closer to the delivery of outputs, would increase the amount of unchecked, invalid claims submitted with irrelevant or unhelpful accompanying evidence.

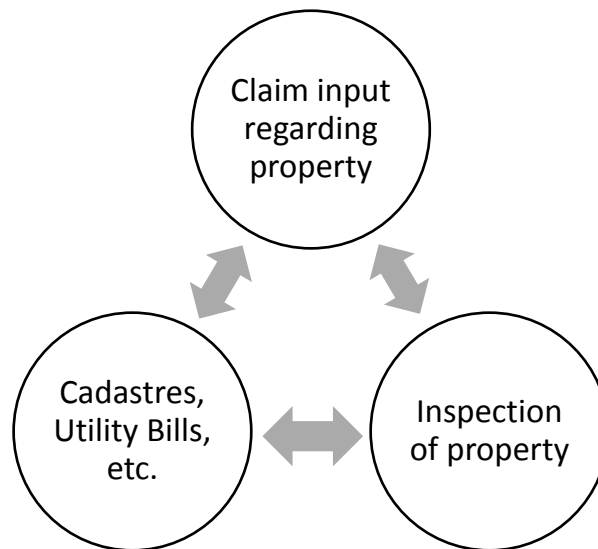
9.4.5 Assessment & Data Alignment

The claims received contained the required information about the property (size, location, other relevant characteristics). This was compared to trusted sources of documentation, such as cadastres, official maps, and even bills from utility suppliers to confirm relevant details about the property. An additional check could also be made by HPD staff, by going out and examining the actual property.

This approach meant comparing three sets of data to ensure congruency. When these data sources aligned (see

Figure 9.7), the decision was rather straightforward. The occupancy would be clearly determined on the aligned data.

Figure 9.7 - HPD alignment model for property details



When the details about the property do not align, investigation was required and the HPD made an informed decision based on the available evidence.

Investigation was permitted by Regulation 2000/60, §21.2. This has clear similarities to the SPS delivery system in data alignment and the use of inspections to clarify data misalignment.

9.4.6 Window of processing

Processing began before the close of the process to new claims. This meant that the process was accepting new claims while processing previously submitted claims. This allowed for the possibility that a newly-submitted claim could impact or affect a claim submitted earlier and processed to completion. The interview subject stated that in these cases, the second claim would be processed to completion. It was acceptable to the HPCC commissioners if the original decision was overturned in light of the new information presented by a second, later claim. This approach avoided the need to find all the potential

interrelated claims prior to the release of decisions; accepting a further degree of inaccuracy or '*rough justice*'.

9.4.7 Potential outcomes / Outputs of the system

Claim processing had the potential for a single outcome, a closed file which contained a decision. That decision could have been to either reject the claim, or award occupancy rights to a claimant. This would then have led to implementation of the decision. Rejections were allowed at any point in the claims process. Claims rejected generally fell under two categories: rejected because the claim was outside the jurisdiction of the Commission; rejected based on the evidence/merits of the claim.

In the first instance, the grounds of the claim put forth by the claimant were not covered by the mandate. For example, the claimant may have lost occupancy for another reason not motivated by- or connected to the conflict or racial tensions: the claimant abandoned the property before the conflict and was using the HPD to simply evict squatters. These types of claims were rejected outright because they fell outside the coverage of the mandate. The second instance, rejection based on the evidence/merit, where the claimant did not produce adequate evidence to demonstrate occupancy. It might be the case that the claimant was simply trying to use the HPD to gain property rights fraudulently.

In this manner, the HPD had only to work toward a limited set of potential outcomes. No other outcome was allowed as an output for the claimant, as directed by both the mandate and the rules governing the process (UNMIK, 2000: §22.3). Any legal issue which fell outside the scope of the HPD's remit that was raised during the adjudication was to be handed to the local courts in Kosovo (UNMIK, 2000: §22.6).

9.4.8 Appeals / Requests for reconsideration

Once a decision was rendered by the HPD and approved by the Commission, any of the parties involved in the claim had 30 days to request for reconsideration. This 30 day period was separate and additional to any other 30 day periods for the previously described '*Reply to Claim*' or the subsequent response to the '*Reply to Claim*' (see Section 9.3.1, above). The addition of the

30 day period for reconsideration put the total at 90 days that a claim could be delayed by external requests. Requests were only considered in those cases where new evidence was found that was not considered in the first decision; or where there was “*material error in the application of the present regulation*” (UNMIK, 2000: §14.1 (b)).

The lone exception to the 30 day reconsideration limit was for those who learned about the decision after it was made and who could show good cause why they did not participate as a party to the original claim. In these cases, the latecomers had up to one year to file a request for reconsideration, which was also subject to the conditions listed above.

9.5 Delivery system design characteristics

In this section, the focal delivery system design characteristics for this research will be described, as observed in the HPD. As discussed throughout the thesis, this set was assembled from the synthesis of the two relevant literatures, further described in the research design, and utilised in the first case study.

- Degree of Employee Discretion
- Worker Skill Level
- Degree of Automation
- FO / BO Separation
- Degree of Routinisation
- Batching Techniques
- Postponement

9.5.1 Degree of Employee Discretion

The degree of employee discretion is directly affected by the rules guiding the process, especially those rules related to the evidentiary standard. As described in Section 9.2.1 above, the evidentiary standard allowed the claimant to submit “*any reliable evidence*” (UNMIK, 2000: §21.1) relevant to the claim. The decision on reliability was left to the HPD employee. Interviews revealed that while the HPD legal staff was the ultimate arbiter of reliability of evidence, the field operatives also had the ability to use their discretion when advising the

claimant prior to claim submission. The HPD field operatives were permitted to examine documents and advise the claimant on the evidence presented and its validity. The submitted evidence was later reviewed by the lawyer adjudicating the claim, where it could be rejected or accepted based on the discretion of that lawyer.

Additionally, the process by which the final decision was created was not formulaic. The lawyer producing the decision must abide by the rules, laws, and related legal precedents. However, the lawyer was given enough discretion to weigh the merits of each case based on their understanding of the legal boundaries for the case. While this may produce similar results when performed by different members of the legal team, each individual lawyer has the discretion to adjust decisions if required. This discretion was overseen by the Housing and Property Claims Commission (HPCC); the panel which reviewed decisions to ensure compliance and quality. This review appears in the final stages of A3 (Adjudicate Claim) seen in Figure 9.5, above.

The interviews showed that administrative staff, such as those in the ‘File Services’ and ‘Official Records’ teams, had very low levels of discretion. These employees performed activities such as managing the receipt of the physical claim file, claim data entry, and updating claim files with decisions and official actions on that claim. The highly-organised and structured nature of these activities required the elimination of discretion in favour of standardisation.

Table 9.3 – Observations on Degree of Employee Discretion in the HPD

Characteristic	Observation	Evidence
Degree of Employee Discretion	Lawyers – high discretion	Claim adjudication using any evidence the legal staff member considers relevant; empowered by the rules governing the process.

	Field office staff – med/high levels of discretion	Advising claimants on suitability of claim submission (incl. supporting evidence and claim data); discretion used to inform claimant on what pre-determined types of evidence were accepted.
	Administrative – low discretion	File management, data entry, and record keeping where discretion was not desirable.

Table 9.3 presents the three observed levels of worker discretion in the HPD. From the descriptions provided in the interview and in the supporting materials, the process was structured around giving increasing amounts of discretion to those employees responsible for making the legal decisions crucial to the process.

9.5.2 Worker Skill Level

Like the SPS, the data collected at the HPD reflected several levels of worker skill. These levels aligned with job duties. The characteristics and general duties are described in Table 9.4 below. As was the case with the SPS, because this research focuses on the operational delivery processes of the HPD, this list omits employees from ‘support’ functions such as IT, finance, and human resources. This list also omits the ‘manage’ functions, such as Commissioners from the HPCC; the HPCC was tasked with legal oversight of the HPD.

Table 9.4 – Observations on Worker Skill Level in the HPD

Characteristic	Observation	Duties	Evidence
Worker Skill Level	Low skill level for: <ul style="list-style-type: none"> - File Services - Official Records 	<ul style="list-style-type: none"> - General office support - Filing claims and claim related evidence 	Interviews and process model: <ul style="list-style-type: none"> - ‘Collect Claim Data’ (A1) - ‘Adjudicate Claim’ (A3)

Characteristic	Observation	Duties	Evidence
			<p>Secondary Data</p> <ul style="list-style-type: none"> (HPCC, 2007; NORDEM, 2006; Wühler & Niebergall, 2008)
	<p>Medium-to-High skill level:</p> <ul style="list-style-type: none"> HPD field office staff 	<ul style="list-style-type: none"> claimant contact assisting form completion property inspections decision implementation (delivering notices, evictions) call centre liaising with regional government for property information 	<p>Interviews and process model:</p> <ul style="list-style-type: none"> All sub-processes: (A1) (A2) (A3) (A4) <p>Secondary Data</p> <ul style="list-style-type: none"> (HPCC, 2007; NORDEM, 2006; Carrillo & Palmer, 2010; Karrer, 2005)
	<p>High skill level</p> <ul style="list-style-type: none"> HPD Lawyers Registrars 	<ul style="list-style-type: none"> claim adjudication reviewing legal decisions to ensure consistency liaising with HPCC to enact decisions legal archiving creating official reports 	<p>Interviews and process models: (A1) (A3)</p> <p>Secondary Data</p> <ul style="list-style-type: none"> (HPCC, 2007; NORDEM, 2006; Holtzmann & Kristjansdottir, 2007; Karrer, 2005)

The observations above are drawn from the interviews performed, as well as from secondary data describing the organisation and its employees. When compared to the delivery system models, what emerges is that the HPD field office staff performed the largest number of tasks, the Lawyers and Registrars

performed the next largest set of tasks, followed by the administrative staff. The observations on the skill levels of those worker groups is presented both above and in the descriptions accompanying the models (found in section 9.4).

The HPD was earlier described as requiring field office staff to have knowledge of local law. These workers would provide advice to claimants based on their knowledge and interpretation of the law. The review of the HPD by the stakeholder group NORDEM described these workers as having professional skills, linguistically flexible, and trained in the legal profession (NORDEM, 2006). When examining the key transformations which create an output for the claimant, the crucial action of analysing evidence to create the decision was performed by highly skilled lawyers specialising in international law.

This evidence describes the task-weighted summative position of the skill level of the delivery system as medium-to-high.

9.5.3 Degree of Automation

When the HPD first began operations, the use of IT as a facilitation or automation tool was minimal. The staff of the HPD used only basic tools such as word processing and simple spreadsheets for tracking claims. This proved inadequate to the task, with some estimates from staff claiming that given the circumstances claims processing could take several decades.

“The institution’s performance was further hampered by a lack of a functional IT-system. Although the significance of a proper IT system to facilitate mass processing of claims was pointed out at a very early stage, the institution was not able to put in place a functional system until 2003. ... Such a system would facilitate better coordination of the Directorate’s claims processing in terms of information and documentation, and would greatly affect the institution’s ability to handle more claims.” (NORDEM, 2006: 58)

The delivery system in the HPD utilised technology to facilitate different activities within process. Each claim was kept in a claims database where corresponding documents, related decisions, progress toward completion, claim evidence, and any other relevant information could be held centrally.

The claim form itself was not computerised, but data collected on the form was transferred from the paper-based form into the HPD database. It was from this point that the delivery system was facilitated by IT. The use of a database and a computerised claims processing system further extended automation.

Once entered in to the system, the claim data was used in each consecutive stage. In sub-process A2 (Notify & Collect Response Data), an increased incidence of contact with occupants/respondents was observed. In this stage, the IT system did not take the place of the HPD field office staff. Instead, the details of the personal contact were recorded and entered into the claim management system. In those cases where no response was received, or where the response did not require an interview by HPD staff, the outcomes were similarly recorded in the IT system for use by the legal team in the adjudication.

The A3 (Adjudicate Claim) sub-process was heavily supported by IT. Automation remained limited to supporting process flow and decision support (providing claim related documents and other related information). Decisions which determined or influenced the judgment were not automated in any cases. Two steps within the A3 sub-process, 'Verify Documents' & 'Collect Supplementary Field Data', were performed outside the IT system, but the results of those process steps were recorded and stored in the system. The remaining three steps within the A3 sub-process ('Assess Claim', 'Check Quality of Form & Recommend Decision', and 'Review Recommendation & Create Decision') were managed within the claims management IT system. Using both physical documents and digitally-stored supporting documentation, the adjudication was performed by the HPD legal staff and the HPCC Commissioners and Registrar.

Work within the A4 (Implement Decision) was managed within the IT system, but relied on contact with claimants and occupants of the disputed property. The most significant contribution of automation in the HPD was the ability to facilitate Grouping. These groupings enabled the technique of applying decisions to batches of claims in a single action. These Grouping and Batching techniques were discussed previously in Section 9.4.2.

Automation was also used on standard work flows. Claims no longer required manual tracking of forms from one stage of the process to another; once a stage was completed, the claim was moved to the next stage by automated queues. This evidences a high degree of automation present in the HPD, as reflected in Table 9.5.

Table 9.5 – Observation on the Degree of Automation in the HPD

Characteristic	Observation	Evidence
Degree of Automation	High degree of automation	Interviews: - All sub-processes: (A1) (A2) (A3) (A4) Secondary data: (HPCC, 2007)

9.5.4 Front-office / Back-office Configuration

The FO/BO configuration was observed through the coordination of both the location of the HPD offices and the structural points of customer contact in the HPD delivery system. Combined, these will inform an observation on the degree of coupling between the high-contact front office and the low contact back office. This section will present data collected on these two characteristics and then present evidence on FO/BO configuration for the HPD.

9.5.4.1 Centralisation/De-centralisation

The rules governing the process, described by UNMIK Regulation 2000/60, require only that the organisation established to process claims have offices in Kosovo and “*other such locations as it sees fit*” (UNMIK, 2000: §7.1). This language makes no mention of specific locations; the choice of locations was made by the Secretariat in the creation of the structure of the delivery process.

The HPD had a series of regional offices around Kosovo. The regions were:

- Pristina (Headquarters)
- Gnjilane
- Prizren
- Pec
- Mitrovica



Image 9.1 – Regional HPD offices in Kosovo

These offices operated over the entire lifespan of the HPD. Each office was staffed with employees who were able to assist in the completion, collection, and filing of claims; workers also performed the critical task of ensuring the appropriate evidence and documents accompanied each claim.

In order to achieve this, every office was self-contained; each region included administrative staff, decision enforcement, and legal/adjudication teams which included both lawyers and field office staff. Claims were processed from ‘cradle to grave’ in each of the regional offices, with minimal required contact with the main office in Pristina.

Mobile units were created in order to access potential claimants in rural areas. At the peak of activity, the HPD had an extensive network of teams deployed across Kosovo in order to reach “*members of the minority community who did not enjoy freedom of movement due to perceived or real security concerns*” (HPCC, 2007: 27). This philosophy of inclusion led to the decision to create representative offices in neighbouring countries in order to facilitate claim intake from those potential claimants who fled into Serbia, Macedonia, and Montenegro. The organisation faced criticism for delays in setting up these regional offices, stating that claim intake might have been higher if the offices were established sooner.

However, these delays were not attributed to the operation of the delivery system; but rather the project initiation abilities of the first oversight organisation, UN-Habitat. The evaluative report of the HPD presented by the stakeholder organisations, the Norwegian Resource Bank for Democracy and Human Rights (NORDEM) stated that the delay “*seems to have been a result of*

lengthy bureaucratic and administrative procedures, as well as lack of coordination between the institution and its partners.” (NORDEM, 2006: 53).

Nearly 20,000 claims were collected outside the borders of Kosovo, through the strategy of going out to contact the claimants. This is clear evidence of a de-centralised process. Interviews and secondary data collected show that had the HPD not implemented the policy of going to the regions to facilitate claim collection, the process may not have been considered a success and left the victims in the regions under-served (HPCC, 2007).

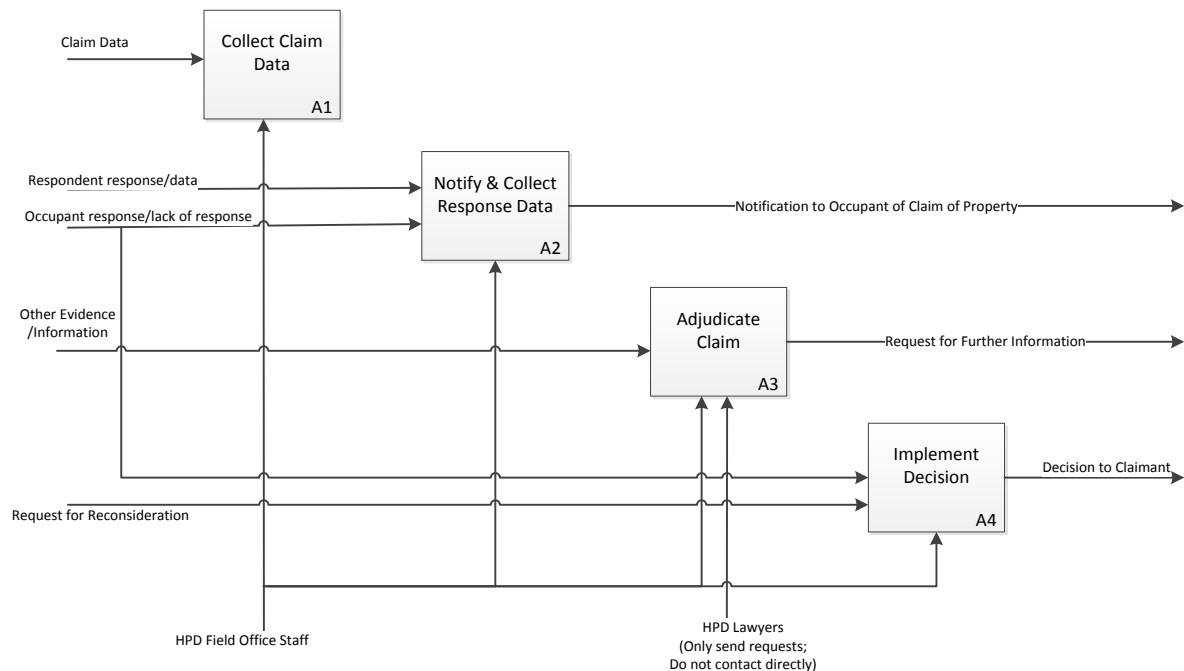
9.5.4.2 Degree of Customer Contact

The observations from the case show distinct instances of both high contact and low contact. The organisation chose to limit the amount of contact and communication made available to the claimants during the decision-creation stage; but encouraged contact at the two ends of the claim treatment process. In collecting claims, claimants met with HPD staff to check the acceptance of potential supporting evidence, receive feedback, and ultimately to receive a reference number which proved the admittance of the claim into the treatment process. When the process completed and a decision was rendered, the HPD staff delivered the decision and facilitated the transition of occupancy of the property face-to-face.

Interviews highlighted the existence of a ‘*transparency vs. accessibility*’ dynamic. Not unlike the efficiency vs. accuracy trade-off, the organisation wished to be transparent in how it acted and in the evidence used in decision-making. However, if claimants were too active in taking advantage of the transparency it could bog the staff down in answering requests, taking them away from claims processing. This prompted the restriction of access from the claimants to the HPD staff who were responsible for evaluating evidence and rendering decisions. There were no walk-in appointments available. Outward bound communications from the organisation to the claimant was not restricted in any way. However, in-bound communications were restricted as an efficiency measure.

The process model of the HPD is presented here in Figure 9.8, with only those points of customer contact shown. Also shown are the workers responsible for that contact, which in all-but-one case was the HPD field office staff. The HPD Lawyer who creates the ultimate decision for the claimant is represented by a single point of contact: the outbound communication with the claimant requesting further information for decision creation (found in A3 – Adjudicate Claim).

Figure 9.8 – Isolated view of points of customer contact



In summary, there was a high degree of customer contact as evidenced by points of contact across treatment process. Significant contact was described at the outset (data collection) and at the implementation-of-decision points. This is contrasted by a very low degree of customer contact in the critical stages of legal analysis and decision creation activities in the process.

9.5.4.3 FO/BO Configuration

Drawing on the observations made for Degree of Customer Contact and for the Centralisation/De-centralisation decision, it is clear there was a delivery system featuring multiple highly-coupled points and a highly-decoupled section of the process in the claim treatment process. This existed in each of the five regional offices. The highly-coupled sections existed in the beginning of the process (A1

and A2) and again at the end (A4). De-coupling existed in A3; decision-creating lawyers rarely went into the field or met with claimants, and instead were required to communicate through intermediary staff.

The implementation stages of the decisions (which consisted of actions taking place at the property in question, often with either claimant or respondent present) were handled in-person by field office staff members. HPD Lawyers were not involved in this phase. These separations between field staff and legal staff ensured that the legal staff remained focused on reviewing evidence and rendering decisions. The field office staff members were charged with nearly all contact with claimants; receiving information, clarifying that information, and then passing that information to legal staff.

The summary observation is presented on the following page in Table 9.6. There is evidence of both high and low degrees of separation between front- and back-offices. The delivery system of the HPD appears to begin as highly coupled, shift to a highly decoupled process, then revert to being highly coupled once again.

Table 9.6 – Observation on the Degree of FO/BO Separation in the HPD

Characteristic	Observation	Evidence
Degree of FO/BO Separation	Highly coupled FO/BO with de-coupling at the analysis & decision creation point.	<ul style="list-style-type: none"> • Decentralised facility locations to promote claimant contact • High degree of customer contact (A1), (A2) & (A4) with the exception of the decision analysis and creation activity (A3)

9.5.5 Degree of Routinisation

Recalling the description of the Degree of Routinisation presented both in Chapter 3 and Chapter 6, this characteristic is the summary position of

observations made on several of the above characteristics: Worker Skill Level, Degree of Customisation, Degree of Employee Discretion, Degree of Automation, and FO/BO separation; as well as observations on Arrival Pattern of Inputs, Volume of Customers, and Response Time from Customer-Initiated Request (Wemmerlöv, 1990). The summary position produces an observation on the degree of rigidity or fluidity of a delivery system.

Observations on the relevant characteristics are summarised in Table 9.7.

Table 9.7 – Observations constructs for Degree of Routinisation in the HPD

Construct	Observation	Evidence
Degree of Employee Discretion	Generally high degree of employee discretion, with low discretion for administrative workers	Interviews Secondary Data <ul style="list-style-type: none"> (HPCC, 2007; NORDEM, 2006)
Worker Skill Level	Medium-to-high skill level	Interviews and process models: Secondary Data <ul style="list-style-type: none"> (HPCC, 2007; NORDEM, 2006; Holtzmann & Kristjansdottir, 2007; Karrer, 2005)
Degree of Automation	High levels of automation	Significant presence of IT systems and computerised tools for all work. <ul style="list-style-type: none"> Supporting interviews and models
Degree of FO/BO separation	Primarily low degrees of separation with high levels of separation at analysis and decision creation.	Supporting interviews, models: <ul style="list-style-type: none"> Low separation across the delivery system, with exception: High separation at 'Adjudicate Claim' (A3)

Construct	Observation	Evidence
Degree of Customer Contact	High degree of inbound contact.	Interviews - Process model, showing contact in all sub-processes.
Degree of Customer Contact	High degree of outbound contact, via post and telephone.	Interviews High level process model, showing outbound contact in five of the six sub-processes.
Arrival Pattern of Inputs	Predictable, entire population received before a set deadline.	Regulation 2000/60, Chapter I, Sect.3.2 (NORDEM, 2006)
Volume & Number of Customers Served Simultaneously	29,000 claims in a single organisational effort	Interviews Secondary Data: (HPCC, 2007)
Response Time from Customer-Initiated Request	No response time set	Interviews Secondary Data: (NORDEM, 2006)

Given the observations above, the delivery system of the HPD was observed to have many of the characteristics of a ‘fluid’ delivery system and fewer of the characteristics of a ‘rigid’ system as described by Wemmerlöv (1990)

9.5.6 Batching and Grouping Techniques

The use of both Batching and Grouping techniques was observed in the HPD. Both were implemented to increase operational efficiency. Grouping techniques facilitated a more rapid understanding of claims with similar characteristics. Once in a group, a standardised decision-making process was applied to increase efficiency.

Batching techniques were applied to the decision approval process. Claims receiving similar decisions were placed into Batches for singular action of approval by the HPCC. Approving Batches of claim decisions also increased the efficiency of the final stages of the process. Table 9.8 presents the summary of the observations and evidence on the use of Grouping & Batching techniques in the HPD.

Table 9.8 – Observations on the use of Grouping & Batching Techniques at the HPD

Characteristic	Observation	Evidence
Use of Grouping & Batching Techniques	Batching and Grouping used to increase efficiency.	<ul style="list-style-type: none"> • Grouping used to create Claim Categories (HPCC, 2007, 60-62) • Batching used to approve decisions in a single action for claims with similar judgements (Cordial & Røsandhaug, 2009)

9.5.7 Postponement

Postponement techniques were not observed in the HPD. The point of customisation was observed to be in the first stage of the process, when the claimant completes the claim form with the assistance and input of a skilled Field Office worker. The advice provided by the worker at this stage was tailored to the situation of the claimant. The worker would analyse the evidence presented by the claimant and provide guidance on the strength and validity of the evidence which would accompany the claim. Additionally, the Field Office worker would perform a quality check on the validity of the claim.

These observations, summarised in Table 9.9, reflect the absence of Postponement strategies in use in the HPD.

Table 9.9 – Observations on the presence of Postponement in the HPD

Characteristic	Observation	Evidence
Postponement	Point of customisation is very early in the overall process; claim form completed by claimant with the aid of Field Office staff.	<ul style="list-style-type: none"> • A1 – Collect Claim Data, skilled Field Office worker present to advise

9.5.8 The HPD in the classification schemes

Comparing the HPD with the classification schemes requires observations on volume, variety, variation, and visibility. These dimensions, combined with the observations on design characteristics and process structure, will assist in placement on the two focal classification schemes introduced earlier in this research.

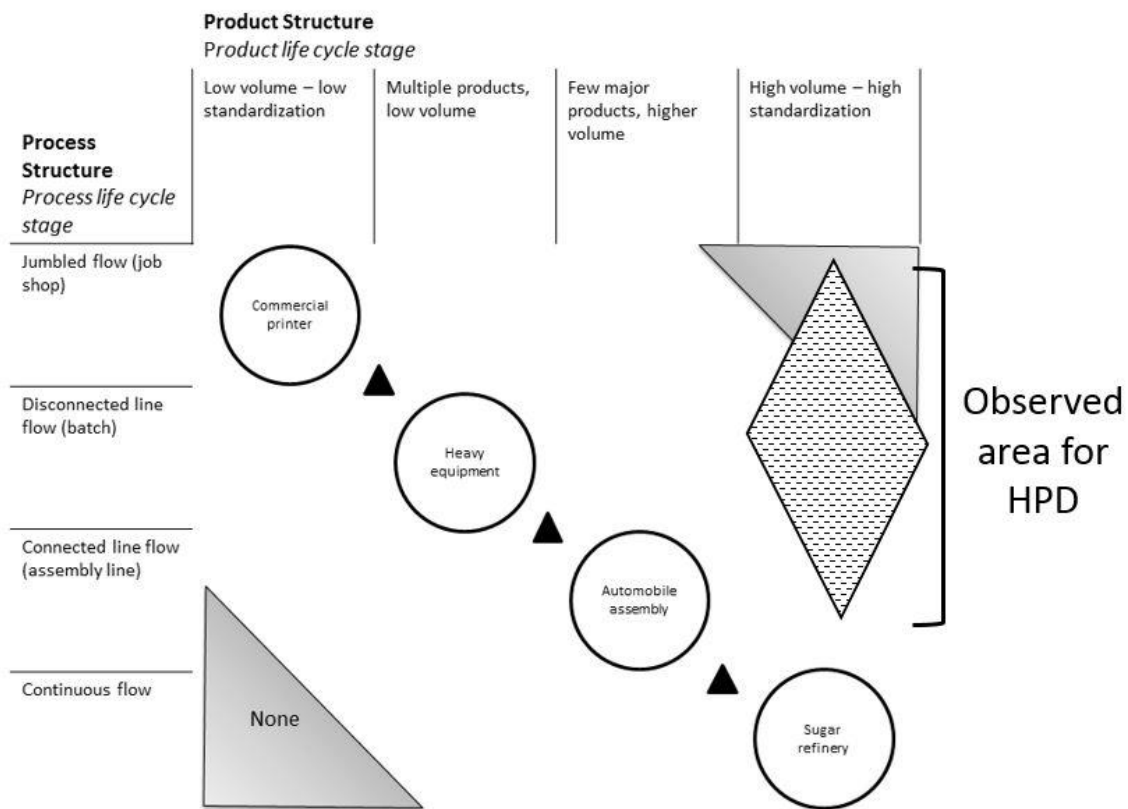
Volume for the HPD was relatively lower than the SPS, but remained high at 29,000 claims. Like the SPS, variety was very low. For successful claims, the HPD offered the right to occupancy of a property, or a decision which entitled the claimant to another type of restitution (namely assistance from a partner humanitarian aid organisation); however, the process of claim treatment was the same. Variation in demand was a single batch of 29,000 claims which all arrived prior to a single point in time. Like the SPS, the one-time spike did result in high variation, but once the demand was known it remained unchanged which increases predictability.

Observations on visibility can be drawn from the high degree of customer contact and the decentralisation strategy. The amount of contact between the field staff and the claimants in each of the five regional offices evidences high visibility. However, the analysis and decision creation activities were observed

to be low visibility. Therefore, the summary position on visibility is medium-to-high.

These observations place the location of the HPD on the Product-Process Matrix off the efficient diagonal, shown here in Figure 9.9. The evidence above places the HPD in the far right-hand column of high standardisation and high volume. The placement transcending boundaries in the vertical axis reflects the multiple approaches to claim treatment: the individual treatment provided in both decision creation and in claim submission; use of grouping, batching, and standardised decisions associated with batch processes which affected the largest number of claims; and the minimal instances of high volume, continuous flow processes associated with data entry processes.

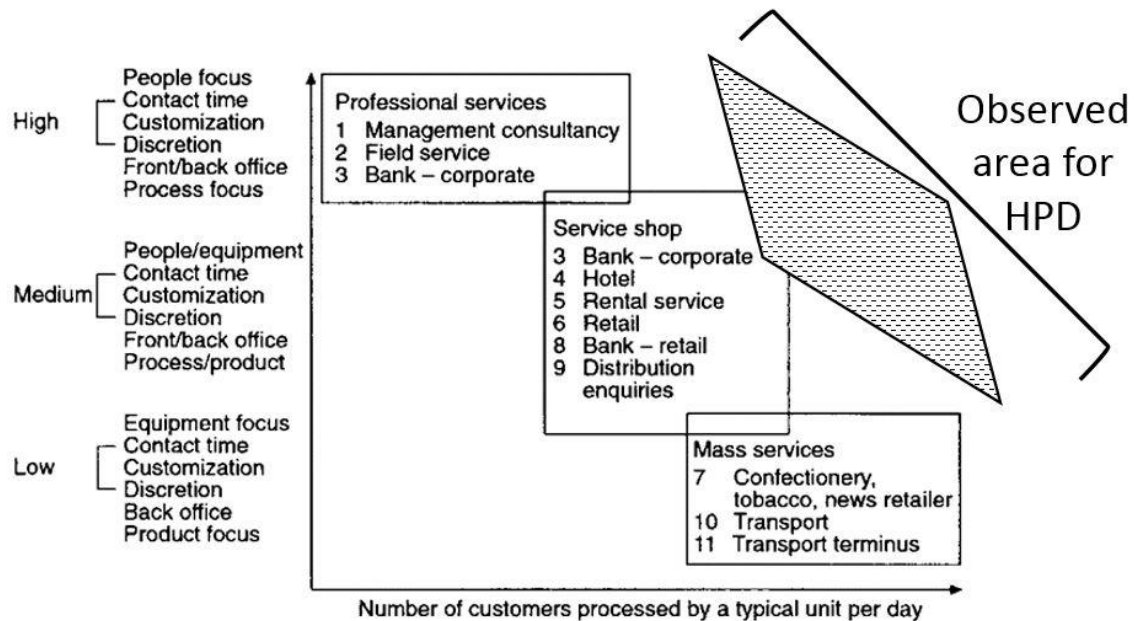
Figure 9.9 – HPD in the Product-Process Matrix



As with the Product-Process Matrix, placement of the HPD on the Silvestro *et al* (1992) classification scheme again transcends the boundaries of the scheme's archetypes. Again, evidence from each of the three archetypes was found in the HPD. The predominance of the work performed by the HPD field staff was reflected in the breadth of the 'Service Shop' area of the illustration. The

second most observed type was the ‘*Professional Service*’ work done by HPD lawyers and registrars. This was clearly not as voluminous, but it contained the crucial activities of analysing the claim and producing a decision. ‘*Mass Services*’ were found in the claims reception and data entry stages of the process, as was described above. The combination of these observations provides the placement on the classification scheme illustrated in Figure 9.10.

Figure 9.10 – HPD in the Silvestro *et al* Classification Scheme



Source: Silvestro *et al.* (1992)

The observations of the HPD created an illustration of the organisation which transcended the boundaries of organisation archetypes as presented by these two schemes.

9.6 Summary

When one considers the uncompromising position of the mandate and the given set of rules governing the HPD, this leaves the delivery system in the position of executing the mandate without any ability to affect the mandate. Reflecting on the inability to influence the creation of either the mandate or the rules during the creation of the delivery system, Dr. Ehrlich stated that “*you got what you got.*” Those responsible for establishing the operating process had to create the design with the given parameters.

When observed through the lens of the Service Strategy Triad (SST), the target market is clearly defined in section 1.2 of the mandate (UNMIK, 1999/23) as those who were generally forced to abandon occupancy of a property as a result of the conflict. The service concept is the offering to claimants of the opportunity to legally regain occupancy of such properties. With both the target market and service concept rigidly defined, this places the HPD in a similar situation to that of the SPS. The delivery system for the organisation was required to align to the two rigidly defined and inflexible elements of the SST. There is no evidence that either the target market or the service concept were adjusted at any point during the operation.

The Efficiency vs Accuracy trade-off for the HPD clearly resembles that described in the MCP literature. The process must provide justice and fairness, but at an acceptable cost and in a reasonable time frame. Observations made of the process revealed that each valid claim received attention from legal staff, but not to the degree that a similar case would if taken through a 'normal' judicial process. The decision to operate the HPD as a Mass Claims Process shifts the accuracy decision toward the provision of 'rough justice'. In doing so, the emphasis on the speed of the process was increased so that the volume of claims received can be treated in the given time frame. These decisions are reflected in the rules established to govern the HPD process (UNMIK, 2000).

To deliver efficient 'rough justice', the HPD adopted a more 'fluid' set of design characteristics. This design intended to embrace the uncertainty of poor quality evidentiary data and short time frames for delivery. The use of techniques such as grouping, batching, and standardised decisions align with the provision of rough justice. What appears to have made a significant difference was the lowering of the evidentiary standard which greatly reduced the amount of time required to reach a decision, and the lack of complications from large groups of interrelated claims.

However, while the fluid design characteristics were the more dominant, this does not exclude the presence of rigid characteristics in other areas of the organisation. It appears as though the organisation attempted to capture efficiencies in areas where rigidity could be applied. The approach of delivering

'rough justice' with fluid processes was borne out of necessity, due to the low evidentiary standard.

There was no observed application of Postponement strategies in the HPD. Skilled workers were placed at the start of the process to assist in evidence collecting for claim submission, providing customisation at the start of the process. The observed intention of this approach was to ensure that the claim was valid, appropriate evidence was attached, unhelpful attachments were prevented from submission, and that the HPD had everything required to process the claim to completion without any further contact with the claimant. Additional contact was regularly needed, but it can be argued that the impact of the guidance at the outset of the process significantly reduced the amount of contact later required through attenuation of customer-input variety.

Interrelation, while present, did not affect this delivery system as drastically as the SPS. There appears to be several reasons for this. When the claims receiving window closed in July, 2003 the potential for the creation of new connections stemming from claim data interrelation was drastically reduced. This would result in the reduction of claim complexity linked to interrelation and subsequent consumption of organisational resources required to address the complexity. This gives the organisation a 'final picture' of the potential challenge it will face in the adjudication of claims, which allows for the levelling of the production schedule.

Another reason for the minimal impact of interrelation was the lack of extensive interrelation, which in SPS was caused by entitlement corrections. The level of accuracy linked to entitlement corrections led to extensive and repeated adjustments to all interrelated claims. This type of interrelation was present in the HPD, but minimised. This can be attributed to two reasons: the emphasis on rough justice over accuracy; and the absence of any mechanism similar to entitlements. The emphasis on rough justice allowed the HPD attorneys to make legally-compliant decisions based on their informed opinion of the case. Strict accuracy was not demanded.

The HPD case provides the second of two polar case perspectives on mass claims processes; one MCP which did not perform optimally (SPS), and one which performed optimally (HPD). These cases enable the research to present a contrast in these approaches. The comparison of the two approaches can then highlight the appropriateness of the different characteristics of delivery system design in mass claims processes. The analysis of that comparison will be presented in the following chapter which discusses the results of the research.

10 Discussion

This chapter summarises the results presented in the previous data analysis chapters and discusses these results in relation to the existing literature. In Sections 10.1 to 10.5, the results are presented in a condensed manner so that the patterns emerging from the data can be more readily emphasised. Second in section 10.6, the research findings are discussed within the context of the existing literatures.

It is helpful to recall the significant points made thus far:

- Both case study organisations examined for this research meet the necessary and sufficient conditions to be considered MCPs.
- The case selection protocol has followed a methodologically sound approach.
- The set of delivery system design characteristics used to analyse the cases is grounded in the relevant literature, and is based on similar research performed by Ponsignon *et al* (2011).

The research conducted on the SPS produced results which raised further questions. The delivery system observed aligned with the best practice recommendations of the extant literature; aligning the volume-variety characteristics with the appropriate delivery system design. However, the performance of the delivery system was not optimal, and the organisation was failing to meet its goals on efficiency and accuracy. The questions raised after the first case, given the alignment to the recommendations from the extant literature:

- What contextual phenomena can be contributing to the sub-optimal performance of the SPS delivery system?
- Where is the research theory failing to inform design in this domain?

This led to the examination of a second delivery system, the HPD. The second case provided further opportunity to build theory in the empirical setting. This approach was used to provide more robustness and validity in the findings through multiple sets of evidence.

The perspective gained through the comparison of the two cases resulted in the following set of findings.

10.1 Findings – Design Characteristics

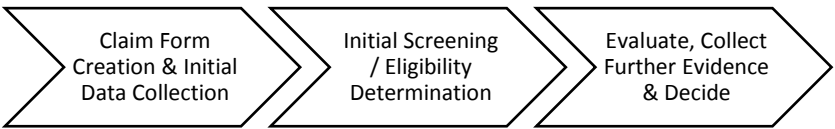
This section presents the findings for each of the design characteristics on which this research focuses. Later sections will present the findings on the focal constructs of the Service Strategy Triad (SST) and Postponement; as well as findings on the case-based emergent constructs of Data Alignment and Interrelation.

10.2 Findings – Delivery System Structure

The generalised models formed during the review of the MCP literature will be compared to the structure observed in the case organisations.

Figure 10.1 presents the component parts of a mass claims process as formed from the MCP literature; this model was presented earlier in Chapter 2. The optional sub-processes of ‘*Appeals*’ and ‘*Quality Control*’ found in the original model have been removed to focus on the core transformational operations which directly contribute to producing an output to the claimant.

Figure 10.1 - Representation of the generalised sub-processes of an MCP, from Chapter 2



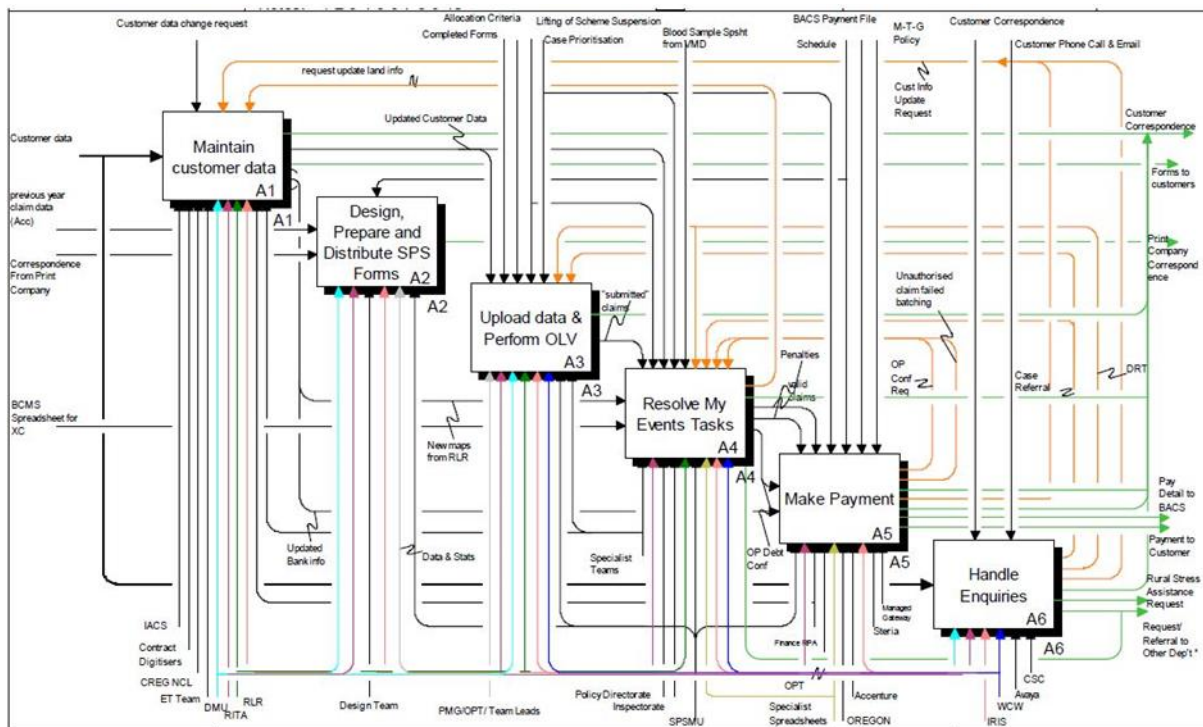
Both of the cases were observed to have a delivery system which aligned to the construct shown in Figure 10.1. All six sub-processes of SPS, shown below in Figure 10.2, can be placed in the generalised process model as follows.

Table 10.1 – SPS Sub-Processes within the MCP General Process model

Generalised Sub-Process from model	SPS Sub-Process	Actions performed
Claim Form Creation & Initial Data Collection	A2 – Design, Prepare and Distribute SPS Forms	<p>The claim form is drafted, amended, agreed, printed, and then sent to the claimant.</p> <p>In this step, the claim form is also pre-populated with claimant data (where available.)</p>
	A1- Maintain Customer Data	Data from the claim form and any supplemental materials is entered into the claim dossier. Any additional supporting materials sent during claim treatment are added to the dossier in this step.
Initial Screening / Eligibility Determination	A3 – Upload Data & Perform OLV	<p>The data from the claim form is entered into the computerised system.</p> <p>Workers perform a set of checks to determine if the claim is considered 'valid'. Invalid claims are rejected.</p>
Evaluate, Collect Further Evidence & Decide	A4 – Resolve MyEvents Tasks	Computerised tasks associated with rectifying claim data or claim details are resolved and the claim value is decided.
	A5 – Make Payment	The output of the process is rendered to the claimant (payment or rejection).
	A6 – Handle Enquires	This sub-process is designed to manage external communications with claimants; where applicable, this process collects evidence submitted by claimants which can affect decisions on their claim.

For ease of reference, the representation of the delivery system is provided in Figure 10.2, below.

Figure 10.2 – The SPS Delivery System



Similarly, each of the sub-processes observed within the HPD can also be placed within the generalised model, as shown in Table 10.2, below.

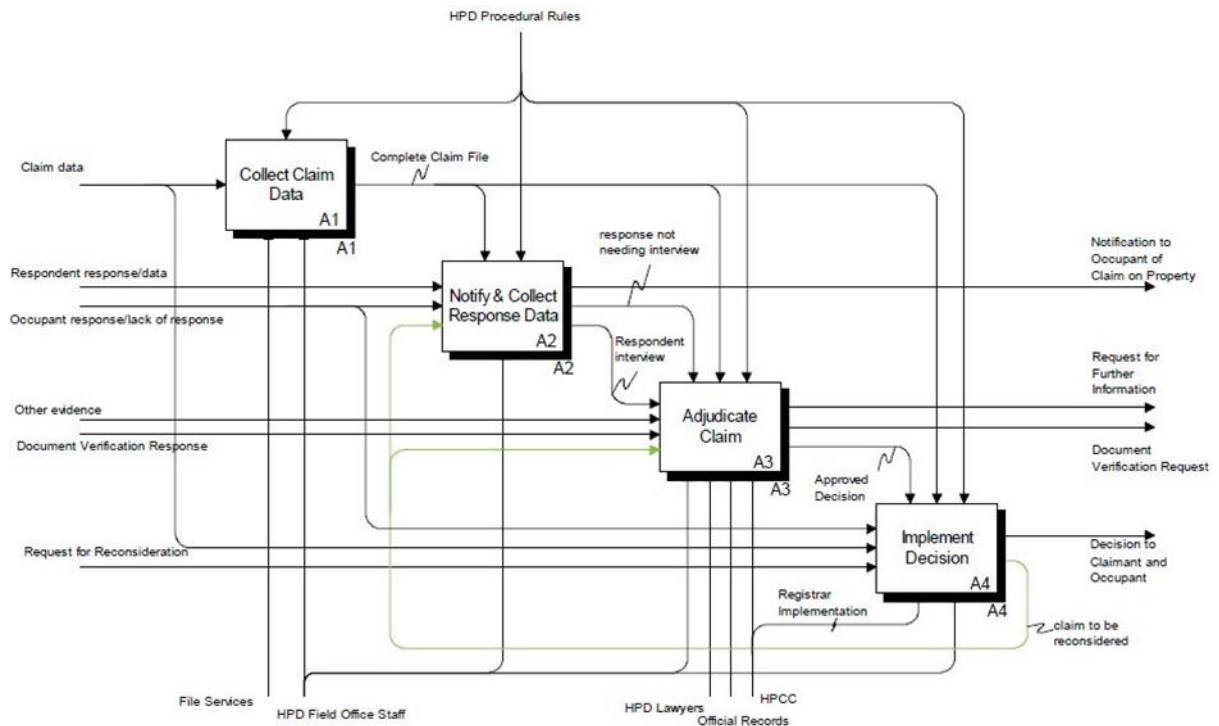
Table 10.2 – HPD Sub-Processes within the MCP General Process model

Generalised Sub-Process from model	HPD Sub-Process	Actions performed
Claim Form Creation & Initial Data Collection	A1 – Collect Claim Data	Claimants work with the staff to complete the claim form and provide the requisite supporting evidence.
Initial Screening / Eligibility Determination	A1 – Collect Claim Data	Legally trained staff works with claimants to determine eligibility and check supporting documentation for applicability.

Generalised Sub-Process from model	HPD Sub-Process	Actions performed
Evaluate, Collect Further Evidence & Decide	A2 – Notify & Collect Response Data	Where properties are occupied, the occupant is notified and given the chance to respond to the claim. This generates a second set of information to be considered with the claim case.
	A3 – Adjudicate Claim	Legal staff evaluates the evidence and renders a decision based on the merits of the claim case.
	A4 – Implement Decision	The decision is produced for the claimant & occupant (where applicable); HPD teams act on verdict at claimed property.

Again, for ease of reference, the representation of the HPD delivery system is presented in Figure 10.3 on the following page.

Figure 10.3 – The HPD Delivery System



The findings from this case show that the HPD completed initial screening/eligibility determination with the initial data collection stages. The merger of the two sub-processes impacted efficiency in later stages of claim treatment; this will be discussed in Sections 10.2.2 - *Findings – Worker Skill Level* and 10.2.7 - *Findings – Postponement*, below.

10.2.1 Findings – Degree of Employee Discretion

The two cases presented very different observed levels of Employee Discretion; however the data shows that as the desired levels of accuracy and efficiency increased, the degree of employee discretion decreased. The SPS system was observed to exhibit very low levels of employee discretion. To meet the high levels of accuracy in claim valuation as dictated by the rules governing SPS, the delivery system required all workers to utilise a prescribed claim valuation process which was rigorous and thorough. To meet the high expectations of efficiency, the organisation used IT systems and a clear set of instructions (the ‘Desktop Helper’) to raise the level of standardisation of valuation activities. This had the effect removing the potential for any employee to exercise discretion within the claim valuation process. Observations across the delivery

system showed no activities which permitted the employee to use discretion when completing tasks.

Conversely, the HPD was observed to have higher levels of employee discretion within the claim treatment process. The data showed that despite very low levels of discretion for administrative staff, increasingly higher levels of discretion appeared in other areas. The field staff could use higher levels of discretion to assist the claimant in the assembly of evidence supporting the claim; and the staff lawyers that adjudicated the claim were given very high levels of discretion in the production of the final decision.

The evidentiary standard at the HPD was lower than the SPS, whereby accuracy was determined by the plausibility of the evidence rather than on precise, objective measurements. The staff of the HPD considered the evidence submitted by the claimant, compared the submitted evidence against existing law and related decisions, and rendered a legally-accurate decision. Each stage utilised a high degree of discretion. Observations show that this delivery system design is less efficient as a result of the consideration and a preponderance of the evidence; as opposed to decisions made through a rigidly-defined automated rule set.

This data therefore suggests an inverse relationship between the levels of accuracy and efficiency, and the degree of employee discretion.

10.2.2 Findings – Worker Skill Level

The data from both organisations provides evidence showing the requirement of multiple skill levels within the same delivery system. Again, however, the two cases differ in the skill levels of workers in certain areas. Both delivery systems utilise workers with low skill levels in order to perform the administrative tasks such as data entry, file management, claimant data management, and document management. However, differences were observed in many other comparable areas.

The HPD utilised workers with a medium skill level to perform the inspections of the physical space (land and buildings) included in the claims; while the SPS similarly utilised medium-skilled inspectors to perform basic surveying tasks.

The SPS workers were not required to perform any negotiations with the claimant, nor were they asked to perform any analysis of the claim or its history. In interviews with the Chief Operating Officer of the SPS he stated that trained temporary staff members were employed to perform these tasks. Conversely, in interviews with the Head of the Legal Department at the HPD employed staff members who had experience in the local legal system to perform on-site inspections. The experience and training clearly exhibits a skill level for this task which was higher than the previously described low skill workers.

The skill set required to perform the valuation of the claim (SPS) or to render the verdict on property occupation (HPD) was also observed to be different between the two organisations. In the SPS, valuations were performed by 'Whole Case Workers' who received specific training for the job they performed. This job did not require relatively high levels of education, and the organisation offered new employees specialist training on the process of claim treatment and the use of the IT systems to facilitate the work. Therefore the WCW were observed to have a medium-skill level in order to produce valid decisions.

In the case of the HPD, a team of international and domestic lawyers produced the verdicts on occupation of the property. These workers were required to have high levels of education, high linguistic skills, and experience in similar legal contexts. By comparison, the HPD workers were much of a much higher skill level.

The highest skilled workers in the SPS delivery system were found in the areas of 'Entitlement Correction' and in the resolution of 'Tail' cases. In comparison to others in the same organisation, these workers were more broadly experienced with longer tenure in the organisation. The organisation relied on their perspective and understanding of the complications associated with entitlements in order to treat the problematic claims.

In general, the SPS placed the lowest skilled workers at the beginning of the claim treatment process performing data entry and claim filing; moderately skilled workers in the middle of the process performing land inspections and the business-as-usual resolution of claim errors on the non-problematic claims; the highest-skilled claim workers near the end of the process managing claims

experiencing complications and delay; and a second set of moderately skilled workers near the end of the process to manage the closure of the claim (payments or sending denial correspondence.)

The HPD, on the other hand, placed moderately skilled workers at the start of the process to meet with claimants and manage the claim completion and submission process; the lowest skilled workers then performed the data entry and claim filing; property inspections were performed by moderately skilled workers; the claim decision was created by very high skilled lawyers; with another set of lower-skilled workers near the end of the process to manage the closure of the claim (through correspondence).

A summary of worker skill levels observed in the case studies is presented in Table 10.3.

Table 10.3 – Worker Skill Level by case sub-process

Sub-process	Worker skill level from data - SPS	Worker skill level from data – HPD
Collect claimant data	Low	Med
Input/Maintain claimant data	Low	Low
Perform data cleansing	Med-low	Med-high
Perform primary transformation	Med-high	High
Create output to deliver to customer	Med	Med -high

These findings suggest that the presence of workers with higher levels of skill is in conflict with expectations of low skill levels typically associated with the ‘connected flow line’ archetype. In connected flow delivery systems workers are associated with a low overall skill set and narrow focus task specialisation (Hayes & Wheelwright, 1979; Slack *et al.*, 2010).

These findings also show a different approach taken by the two organisations at the outset of the process. HPD placed more highly-skilled workers in the field to work with claimants during the claim building and submission stage. The SPS had very little direct contact with claimants during the claim building stage. The

decision by the HPD to have higher-skilled workers in direct contact with claimants at such an early stage appears to have an impact on the reduction of customer-introduced inefficiency; which supports the observations of Chase (1981). The skilled worker in the HPD attenuated customer-input variety introduced to that delivery system, whereas in the SPS virtually no advice was given to prevent poor quality or unnecessary supporting evidence from entering the delivery system. Addressing poor quality inputs from customers, or unnecessary evidence increased consumption of higher-skilled resource in later stages.

10.2.3 Findings – Degree of Automation

Findings from both cases show high levels of automation to support the delivery system. Both the HPD and SPS used computerised systems to manage work flow, and to support and facilitate the transformation activities which delivered output to the claimants. Once the claim form was received in both organisations, the automated systems were used to facilitate the claim's journey through the treatment process through the use of automated work flows. The HPD delivery system used IT systems as a means of managing the data required to perform the core transformational activity of rendering a decision on property occupation. The related activities of data collection, property inspection, engaging with claimants and respondents, and translation of documents were performed by workers using the IT systems to capture and organise data. The goal of automation in the HPD was to facilitate the process of rendering a decision by ensuring the relevant data was available for the legal staff to use without excessive delays related to retrieval. All decisions were rendered using the IT systems automating the HPD claims treatment process.

The automated systems examined in the SPS case were also implemented to manage the claim flow through the treatment process, and keep claim related data organised and easily retrievable by claim workers. However, the significant difference observed between the two cases was that the SPS system had a higher degree of automation, whereby the crucial task of performing the valuation was done by the IT systems. Workers were responsible for ensuring the accuracy of the data used for the valuation, but the final valuation was

performed by the automated system. There were exceptions for the claims which were extremely large or involved in a large unresolved network of entitlement trades and corrections. These, as mentioned earlier, could not be valued accurately by the automated process and had to be analysed and valued off-system by highly skilled workers.

10.2.4 Findings – FO/BO Configuration

The two cases were observed to have contrasting approaches to FO/BO configuration and the location decision. Superficially, one might consider there to be similarities in each organisation's choice of placing offices in the various regions in which they operate. The HPD had regional offices across Kosovo located in five roughly equal geographically spaced regions. SPS had six offices unequally distributed across England. The location choices for SPS appeared to be politically motivated, rather than for any clear operational benefit.

Both organisations distributed claims to the regional offices for treatment; with the exception in SPS of the Reading office which did not perform standard claim treatment. An additional difference to highlight is that while the HPD kept claims in the regional office for 'cradle-to-grave' completion; SPS collected all claims centrally, distributed them to the regional offices for treatment, and then returned all claims to a central location for completion. There were no geographic connections in the SPS claims sent to the regional offices; claims from a particular region were not sent to that region for treatment.

The FO/BO Configuration logically extends from the location decision for both organisations. The HPD opted to treat claims in regional offices in order to meet the claimants and inspect the land/properties involved. The SPS operated from regional offices, distributing work and providing minimal opportunities for customer contact. This configuration moves away from the concept of a single central office in which the work could be concentrated and performed with less contact with claimant and higher levels of efficiency.

However, both organisations also opted to remove the possibility for claimants to meet face-to-face with workers treating their claims, with the exception of

inspection processes which require contact. Both organisations restricted contact with claims-treatment workers to correspondence which was managed by administrative staff. In comparison, the SPS appears to be highly decoupled despite decentralisation; there was very little contact with the claimants during the entire treatment process. The HPD appears to provide more opportunity for contact in the early stages (claim submission) but once the claim was submitted, the contact between claimant and the workers was eliminated. The configuration of both organisations suggests significant separation between the claimants and the workers performing the core transformation (of valuation or legal determination of occupation); which is highly decoupled FO/BO configuration.

The data shows the HPD had more highly-coupled processes as compared to the highly-decoupled SPS.

10.2.5 Findings – Degree of Routinisation

The findings from the investigation of SPS revealed a delivery system with high degrees of routinisation, and high levels of process rigidity. The evidence collected from this case focused on the various characteristics which comprise ‘routinisation’ (as constructed by Wemmerlöv, 1990). The observations from the set of characteristics are presented here in Table 10.4.

Table 10.4 – Characteristics of Routinisation in the SPS Delivery System

Construct	SPS Observation	HPD Observation
Degree of Employee Discretion	Very little discretion permitted throughout the delivery system.	Higher levels of discretion permitted at the data collection stage and at the key-decision-making valuation stage.
Worker Skill Level	Low skill level in the following teams: <ul style="list-style-type: none"> - DMU - CREG NCL - CSC - Inspectorate 	Low skill level in: <ul style="list-style-type: none"> - Data entry - Claim administration & storage

Construct	SPS Observation	HPD Observation
	Medium skill level in the following teams: <ul style="list-style-type: none"> - WCW - Finance 	Medium skill level in: <ul style="list-style-type: none"> - Collect claim data - Claimant contact / Call Centre - Inspections - Decision implementation
	High skill level in the following teams where exceptions to the process were managed: <ul style="list-style-type: none"> - ET/EC Team - SPSMU 	High skill level in: <ul style="list-style-type: none"> - Claim adjudication - Registrar & Oversight
Degree of Automation	High levels of automation throughout the delivery system.	High levels of automated process support, workflow management; however, decisions were not automated and remained the responsibility of lawyers.
Degree of FO/BO separation	High levels of separation across the delivery system; highly 'decoupled'.	Closely coupled at the start of the process, then highly decoupled for the decision-creation steps, then closely coupled again for decision implementation (where applicable.)
Degree of Customer Contact	Low degree of inbound contact, via post or call centre only.	High levels of contact at the start of data collection, and at the point where decisions are implemented (evictions).
	Higher degree of outbound contact, via post and telephone.	Low levels of contact in later stages of information collection, data validation.
	Very little or no direct person-to-person contact; drop-in centres are the only openly-offered, in-person contact points.	Very little contact in the decision creation, and QA steps.

Construct	SPS Observation	HPD Observation
Degree of Customisation	Low customisation (one form); no alternative, abbreviated, or specially-tailored processes were discovered for any claim. Specialist work existed but was considered normal rather than exceptional.	Low customisation on data collection form (one version); high customisation in evidence permitted to support claim and in level of consideration given to each claim.
Arrival Pattern of Inputs	Predictable, entire population received in a short period of time.	Predictable, entire population received in a short period of time.
Volume & Number of Customers Served Simultaneously	High volume, 125,000 claims simultaneously.	High volume, 29,000 claims simultaneously.

In constructing the multi-dimensional characteristic of 'Routinisation', Wemmerlöv (1990) presents evidence that delivery systems with high degrees of routinisation benefit from efficiency in the transformation process. Prior to its creation, the SPS delivery system was faced with the task of treating a high volume of claims with a known and predictable arrival pattern, and a single variety in inputs (one type of claim form for all claimants). In order to efficiently address demand in that context, the extant research recommends application of the characteristics of routinisation to the delivery system. The observations from this research suggest that this indeed is the case, and that the SPS bears the characteristics of a highly routinised, rigid delivery system. However, the SPS had failed to meet organisational goals on efficiency and timeliness.

The HPD was given a similar task of claims treatment and set of pre-existing characteristics of high volume, known arrival pattern, and a single variety of claim form. By contrast, the HPD was observed to have created a delivery system with low degrees of routinisation; a more fluid delivery system. The HPD, by contrast, successfully met targets on efficiency and timeliness.

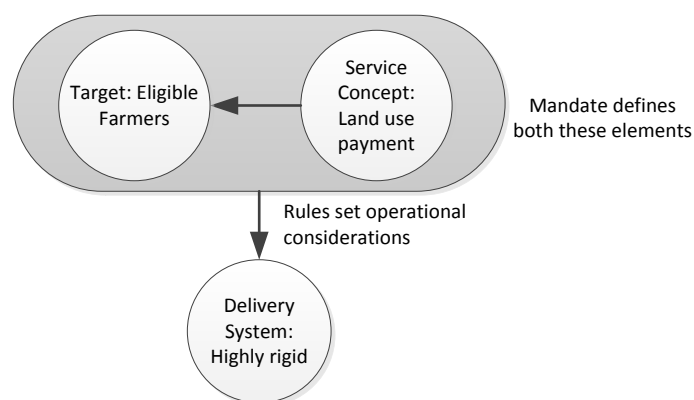
10.2.6 Findings – Service Strategy Triad

The findings show that MCPs have a very different engagement with the Service Strategy Triad (SST) as compared to traditional, profit-focused organisations operating in the open market. The SST was earlier described as

containing the key concepts of '*who*' the service is being produced for (target market), '*what*' is being produced (service concept), and '*how*' will the service be offered (delivery system) (Roth & Menor, 2003).

Instead of alignment between these elements, the structure of MCPs forces the design of the delivery system to react to the rigid definitions of target market and service concept as described by the mandate and rules. This is illustrated in Figure 10.4. This requires the design of the delivery system to react to those rigid definitions to reach optimal performance.

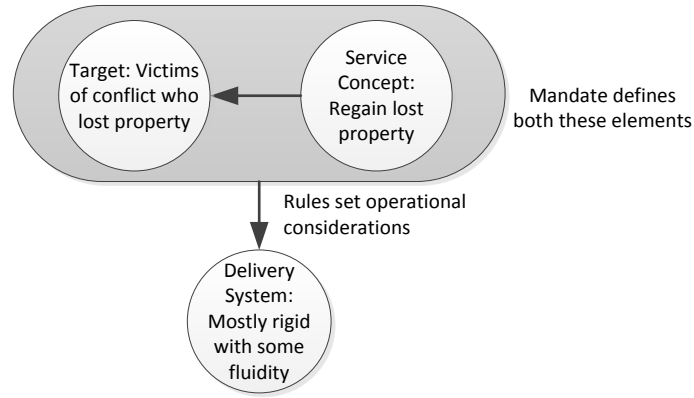
Figure 10.4 - The Service Strategy Triad for MCP - SPS



The SPS mandate requires the organisation to deliver compensation from the European Community to landowners with arable land that is managed according to predefined conditions. This provides the '*who*' of the target market. '*What*' they receive, the service concept, is described as government issued financial support delivered from a claims process.

Similarly, in the HPD, the target market is defined in the mandate as those who were generally forced to abandon occupancy of a property as a result of the conflict. The service concept is the offering to claimants of the opportunity to legally regain occupancy of a disputed property.

Figure 10.5 - The Service Strategy Triad for MCP - HPD



Again, the ‘who’ and the ‘what’ elements of the SST are predetermined by the legal proceedings which created the organisation. Thus, the delivery system is left as the only element in the triad which is able to be adjusted in order to delivery strategic alignment, and ultimately optimal performance for the organisation. The alignment in the HPD is illustrated in Figure 10.5.

10.2.7 Findings – Postponement

The findings from both cases reflect very little evidence of the application of any postponement strategy. Both cases showed customisation actions at points very early in the delivery system. The motivating reason for this decision in both cases was to attempt to increase the quality and reliability of the information provided by the claimant.

The SPS system showed an important customisation activity at the very outset of the process, where past-year claim data was used to pre-populate the form sent to claimants. This had the effect of providing the claimant with customised content which was intended to simply be signed and returned. Similarly, the HPD provided a point of customisation at the outset of the process by providing the claimant an opportunity for face-to-face contact with skilled workers. These workers were directed to advise the claimant on the content and supporting evidence provided. Due to the unique nature of the information provided by each claimant, these experiences were heterogeneous.

The evidence from the HPD shows that this customised interaction between the claimant and a skilled worker promoted efficiency later in the process. The skilled worker was able to positively affect the claimant inputs to the delivery

system through customised advice. In this way, the claimant would avoid the submission of inputs which would consume HPD resources and not benefit the claim; such advice would also reduce the potential number of delays generated through the latency associated with postal correspondence.

The evidence from the SPS shows that the distribution of a customised, pre-populated form was successful in promoting efficiency for a sub-set of claims unaltered over several years. However, the pre-population of the claim form also generated a significant of errors and rework due to the poor coordination and timing of the pre-population activity. It was shown that the data used for pre-population was taken from claims while data was actively being corrected; therefore, some of the pre-population data used was inaccurate.

Regardless of outcome, the data provides evidence of customisation activity very early in the process, which shows that postponement strategies were not applied in these cases.

10.2.8 Findings – Data Alignment

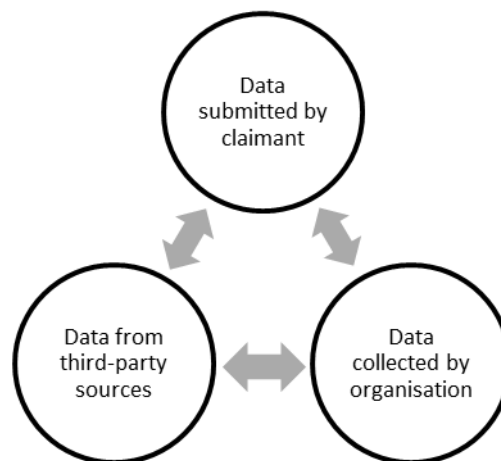
The findings from Phase 1 and Phase 3 of the SPS research revealed three data sources which were used in the analysis of the claim. The most commonly used sources were the Rural Land Register (RLR) data and the claimant submitted data. The third source was land data generated by physical inspections of the land. Such inspections were either randomly generated to fulfil inspection requirements outlined in the rules, or prompted by discrepancies created by claim treatment. These data sources carried the physical characteristics of the parcels submitted in the claim used in valuation activities. The link to valuation made the land data highly important for delivering on the organisational targets of accuracy. The emphasis on accuracy resulted in the data being subject to high levels of scrutiny by the workers treating claims.

The HPD acted in a similar way, utilising three sets of functionally similar data for claim treatment. However, the HPD was not obliged within its rules to carry out inspections of properties, which was required of the SPS delivery system. The inspections carried out in Kosovo were only performed when a question about the dimensions, state of existence, or occupation of the property involved

in the claim was raised. The most commonly used data sets were the claimant submitted data and the land registers/cadastrals for the properties in question.

Observations from both cases showed that when the claimant submitted data and the land register/cadastre data did not align, evaluation work was required to determine which data set was accurate. In certain cases a physical inspection of the property in question was performed to determine accuracy. This provides evidence that both cases used three separate sources of data in evaluating a claim: claimant submitted data, external data sources (such as maps and cadastres), and data collected by the organisation. This is represented in Figure 10.6.

Figure 10.6 – Data Alignment Model



Once accuracy was achieved, claims could then progress to the final stages of treatment where an output was created and sent to the claimant. For the HPD, the final decision did not affect changes in third-party data; if the consideration of the evidence resulted in a disagreement with maps/cadastrals, these sources were not changed or adjusted in any way. In the case of the SPS, the results of physical inspections were used to adjust the maps held by the organisation for use in subsequent claim years. This increased the amount of work required by the SPS in order to determine accuracy in future years.

Similarly, if inspections produced evidence that land data submitted by the claimant was clearly incorrect, the SPS delivery system was required within the rules to bring punitive action against that claimant. Again, this increased the volume of work required in the SPS to ensure higher levels of accuracy. These

findings demonstrate the importance of a data set which can be trusted by the organisation to determine accuracy, as this would eliminate the need to verify accuracy with inspections. Observations showed that inspections often affected land data for previous claim years. This led to rework on earlier claims which were considered to be complete at the time (in producing a new valuation, calculating over/under-payment on the claimant account, and producing any penalties for overpayments).

This multiple-year adjustment was not present in the HPD. It may be concluded that greater efficiency can be achieved in those cases where the delivery system has a 'short memory' by refusing to revisit any previous claims. This would have clear impacts on the organisation's accepted levels of accuracy for the delivery system.

The presence of a 'trusted' data set removes the need for the organisation to perform inspections for the purpose of verification. Removing the need for inspections reduces the time spent treating the claim by reducing the total amount of work performed and associated wait times. Reducing work increases efficiency for the claim treatment process.

10.2.9 Findings – Interrelation

Interrelation posed a significant challenge to both accuracy and efficiency in the SPS delivery system. In the HPD, interrelation was observed to be of little concern for the delivery system. Interrelation was observed in three scenarios.

Firstly, interrelation caused by the same property appearing on claims from two or more claimants; herein called '*competing claim interrelation*'. Second, interrelation caused by the adjustment to entitlements which had been traded; herein called '*cascading interrelation*'. Third, interrelation stemming from 'single pot' payment schemes; or '*single pot interrelation*'.

Observations from each case show these types of interrelation emerged after the participating claims were received and analysed. The number of claims connected by 'single pot' interrelations cannot be determined until after the entire body of claims is treated to completion; thus determining which claims are entitled to their percentage of the 'pot'. The overall number of claims entitled to

payment serves as the dividend in calculations to produce equal individual payments. The dividend cannot be determined until treatment of all claims is complete.

Customer provided input was observed to be the cause of both 'competing claim' and 'cascading claim' interrelation. For the SPS, entitlement trades and adjustments to land boundaries regularly occurred between claim cycles. For the HPD, any number of adjustments to properties occurred prior to the claim process. The connections between these adjustments could not be determined until after the claimant submitted their information.

The amount of interrelation created for all three types could not be known or predicted before the treatment process begins, which created a great deal of uncertainty for the designers and performance managers of the delivery system.

Single Pot Interrelation

The HPD did not provide financial recompense to successful claimants, which means the discussion for this thesis is drawn solely from the SPS delivery system. This clearly limits the ability of this research to discuss delivery system design characteristics in a generalisable way. This section will instead provide a brief discussion focused on the findings regarding the phenomena of 'single pot' interrelation in the SPS.

In describing the organisation (chapter 6), it was noted that SPS distributed over £1.65 billion annually to successful claims. The rules of the process stated that this sum was to be divided among the successful applicants, which placed the SPS in the category of a 'single pot' interrelated claim process (as defined by Karrer, 2005 *inter alia*). The investigation of the payment process showed that claims were paid upon completion, prior to the completion of the entire body of claims. Some were paid partial amounts based on estimations of the potential value and/or the historical value of the claim. This resulted in adjustments to the payment value later on in the process.

While early-in-the-process partial payments are discussed in the MCP literature as a possibility to providing claimants the additional benefit of peace of mind, in the case of the SPS the additional payment and related adjustments consumed

organisational resource. This additional consumption of resource further labelled the delivery system as both inefficient and inaccurate; failing to meet two highly important organisational metrics. This research provides further empirical evidence of the organisational cost of providing partial payments early in the claim treatment process, especially for those organisations which must adhere to high standards of accuracy.

Competing Claim Interrelation

The task of resolving competing claim interrelation was considered by both organisations to be 'business as usual' activity. In the case of the HPD, the organisation existed to settle claims on disputed properties. The mandate of the organisation was clear about returning occupation rights to those who held occupation prior to the armed conflict. The data collected from the HPD showed that competing claim interrelation was so common that it was given its own standardised category/group. The discussion above on worker skill level (section 10.2.2) presented evidence that the HPD required highly skilled, legally-trained workers to resolve competing claim interrelation. This was a result of the need for the decision to comply with property law in Kosovo.

The data from the SPS showed that the SPS similarly faced a regular occurrence of competing claim interrelation. Boundary disputes were settled through physical inspections of the land parcels. The result of the inspection created data which the organisation could trust as accurate. This data could then be used to break the interrelation and produce valuations for all claims in the interrelation cluster.

However, as determined by the cause & effect analysis in Phase 3 of the SPS (chapter 8), the cause of the creation of the interrelation was inaccurate land data used by the SPS in the first years of the scheme. The analysis illustrated the situation where inaccurate measurements and land boundaries in the data used by the SPS then led to interrelations in those boundaries between land parcels. The claimants in these cases (mistakenly) trusted the accuracy of the data presented to them by the SPS and simply approved the land parcel maps as presented. The interrelations were created in those instances where the adjoining land parcels were owned by two separate claimants; thus creating a

situation where the claims were competing for the land involved in the overlap. This required an inspection to rectify the maps; creating the requisite alignment between the three data sets. Once the alignment was created, the claim could progress to the next stages of treatment.

The findings of this area of the research emphasise the importance of reliable data from which to base decisions. In the case of the HPD, the unreliability of both the claimant-submitted data and the cadastres for the region was known from the beginning. As a result, the process relied on the training and skill of workers and physical inspections of the properties to produce reliable outputs to the claimants. The SPS made an assumption at the start that the maps and cadastres were accurate. This later proved to be incorrect, but not before the error took a significant toll on the consumption of resources and penalties imposed on the organisation for inaccuracy.

Cascading Interrelation

‘Cascading’ describes the behaviour of the creation of this sort of interrelation. In the case of interrelation created by entitlements, the interrelation is generated by adjustments to entitlements which have been traded and used by several subsequent claimants. This was first discussed in chapter 6, but will be refreshed briefly here. The entitlements were issued to original applicants of the SPS scheme. Each entitlement was linked to a parcel of land and entitled the bearer to apply to the scheme for the equivalent amount of land (1 hectare of land = 1 hectare of entitlement). The applicants could then divide and/or sell those entitlements to potential applicants who had land but no entitlements. The complications grew for those cases where past-year claims were found to be in error due to an improperly established entitlement (*i.e.*: the original claim contained an amount of land that was later deemed ineligible, rendering the related amount of entitlement ineligible on any subsequent claim with which it was associated.)

‘Cascading’ describes how the number of interrelated claims increases as inaccurate data is identified within the delivery system. If an entitlement was transferred several times and used for several claims, the investigation on that erroneous entitlement cascades the need for adjustments on each of the claims

found to be connected within the cluster. The removal of the ineligible entitlement must be performed accurately for each of the interrelated claims. The clusters of interrelated data required analysis by higher-skilled workers who were able to make sense of the connections and 'de-tangle' the confusing data. The de-tangling of the interrelated clusters adjusted the entitlement and therefore the valuation for each of the associated claims.

In the more complicated interrelations, an entitlement was used by the original claimant then divided up and sold to multiple other claimants. Those claimants used the entitlement for a claim, and then divided and sold their portion of the original entitlement to a third set of claimants. The portion of the entitlement was then used by the third set on their claims, and so on. Each claim connected to the original entitlement error faced a reduction in valuation depending on the representative portion of that entitlement they possessed. The creation of a sense-making solution to this scenario was observed to be very intense, resource-consuming effort for the SPS delivery system.

The HPD delivery system, by comparison, did not use anything which resembled entitlements. During interviews, cascading interrelation was not raised as a concept or challenge faced by the HPD delivery system. The lack of insight offered by the literature on this subject reveals that cascading interrelation appears to be a phenomenon isolated and identified by this research.

There is evidence from the wider MCP literature that competing claim interrelation is known to have occurred in past programmes of work; these concepts will be discussed in section 10.3.3 below.

Additionally, this research finds that a connection exists between the interrelation and the skill level of the worker responsible for its resolution. In order to produce highly accurate decisions in the face of cascading interrelation, the organisation requires highly-skilled workers competent enough to generate accuracy from complicated situations. When faced with competing claim interrelation, the skill set required for resolution is connected to the objective nature of the evidence presented which created the interrelation. Given an organisational goal of high degrees of accuracy, objective evidence (such as

physical inspections to determine boundaries) can be met by workers with a moderate/medium skill set. However, where the evidence requires the judgement of the worker, the worker requires a high degree of skill to ensure accurate outputs for the delivery system.

10.3 Findings in relation to the literature

This section draws on the findings presented above, and presents analysis on the findings in relation to the extant literature.

10.3.1 Service Strategy Triad

Existing delivery system design research emphasises the importance of the relationship between design and effectiveness a delivery system. Heskett (1987) suggests technology, facilities, equipment layout, people, procedures, and service processes all affect design choices. Noting the potential limitations presented by inadequate service design, Gummesson (1994) found that poor design will cause continuous problems with service delivery.

Further research emphasises alignment between the organisational goals and the service delivery system as a condition necessary for organisational success (Kellogg & Nie, 1995; Menor *et al.*, 2001; Roth & Jackson, 1995; Roth & Menor, 2003). A failure of alignment was shown to frequently lead to failure to achieve the organisation's operational objectives (Silvestro & Silvestro, 2003).

This research illustrated a reactive or 'one-way' relationship between the delivery system and the two other elements of the SST. Discussion on such one-way relationships was not discovered in the extant delivery system design literature. When considering that the SST emphasises alignment between the elements of the triad in order to achieve optimal performance, this raises the question of how MCPs are able to achieve optimal performance given the limited ability to align.

It is the finding of this research that alignment is possible in organisations where the service concept and the target market are fixed through adjustments made solely on the characteristics of the delivery system design. The evidence

provided from the HPD show that such a one-way, reactionary alignment is possible.

10.3.2 Postponement

The review of the literature on postponement identified a gap in the literature for research on postponement in a context that is not material-centric. This thesis contributes empirical research in a service setting to address that gap.

Alderson (1950) described the application of postponement strategies as promoting higher levels of standardised activities before undertaking any customisation activities. Customised activities are delayed to the latest possible point in time in order to push operational risk away from the delivery system, toward the customer (Bucklin, 1965). More appropriate to the context of this research, a type of postponement described as 'Pull Postponement' (Lee, 1998) focuses on postponement application to mass customisation delivery systems. This approach proposes an earlier placement of the decoupling point between build-to-forecast work (push) and build-to-order work (pull) in the production process. An earlier point of postponement increases the amount of work done after the customer request is received.

Considering the position of the extant literature on traditional postponement and the concept of 'pull postponement', the findings of this research argue for the avoidance of these postponement strategies in this context. In both cases, this strategy was clearly not adopted. The point of customisation activity was observed at the front end of both delivery systems, with observed efficiency benefits to both (presented above in section 10.2.7). This evidence suggests that MCPs would not benefit from the application of postponement strategies. The act of providing customised assistance in building a claim dossier provided efficiency benefits in later adjudication stages.

The proposition that MCPs would not benefit from postponement agrees with the findings of Yang *et al* (2004), who state that little is gained from the application of postponement in easily predictable environments. There is an accord between the findings from the SPS, where high levels of predictability existed in volume, variety, and demand variation of the submitted claims.

Observations show that a known number of claimants applied during the same time frame, thus providing known volume and variation in demand; often submitting unchanged claims, which appeared to reduce variety.

This research also found that the SPS delivery system faced unpredictable complications linked to interrelation. Despite the high levels of predictability in volume and arrival pattern, the SPS was still faced with a subset of claims with extreme complications presented by interrelation. The level of complication and the number of claims involved could not be known prior to the start of the claim treatment process. This illustrates a high level of unpredictability faced by the SPS delivery system.

Interrelation also presented unpredictability in work levels and complications for the HPD. However, the HPD did not face the extreme complications presented by entitlements. This had two impacts on the nature of the work faced by the HPD. First, the presence of cascading interrelation was insignificant. Second, competing claim interrelation was addressed by business-as-usual procedures (discussed above in section 10.2.9). This illustrates a situation where unpredictability still exists, but at much lower levels.

Despite the appearance of predictability of work levels and complication, the level of emergent unpredictability from claimant-related input was very high. When facing unpredictability from the customer, the literature advocates the use of postponement strategies, delaying customisation to the latest possible point in the process. This research has found evidence to the contrary. Efficiencies were found in both organisations where the point of customisation was moved to the start of the operating process.

The findings on the use of postponement strategies show that the use of postponement is not the most effective way of generating operational efficiencies in the context of MCPs, despite an observed contextual fit to that described in the postponement literature. On the contrary, delaying customisation activities until the latest point would allow a significant amount of customer-introduced variety into the main transformational activity. This research presents a set of empirical data to the postponement literature,

illustrating how early customisation activity assists in attenuating customer-input variety in the context of information-centric organisations.

10.3.3 Interrelation

The MCP literature contains descriptions of scenarios resembling interrelation as observed in this research. The extant literature describes the Claims Resolution Tribunal (CRT) which was tasked with resolving claims on dormant bank accounts held by victims of Nazi persecution in World War II. The literature describes the need for the CRT delivery system to determine ownership of property claimed by multiple applicants. It was common for large groups of claimants to be connected by a relation to a single claimed account through the data supplied to the adjudication process (Alford, 2000; Carrillo & Palmer, 2010; Holtzmann & Kristjansdottir, 2007; Wühler & Niebergall, 2008). The connections generated by the interrelation of the claim data required skilled attorneys to consider the entirety of the interrelated group. The attorneys were required to judge the individual merits of each of the connected claims before making a decision.

There are similarities in the data sets used for the CRT and the two cases observed for this research. In the cases of the CRT and Kosovo HPD, historically reliable source data sets were not available to make decisions on property restitution. This data was systematically destroyed as a result of the armed conflict in the region at the time. In war-gripped regions of Europe between the years of 1933-1945, data was intentionally destroyed in order to erase the public records and cadastres to easily transfer ownership (albeit wrongfully).

In the case to the SPS, reliable, accurate data was not available because of the lack of a carefully conducted survey of the land. This resulted in the use of data which had not been verified. This data contained errors which would ultimately lead to interrelation.

Competing claim interrelation is known and anticipated in MCPs focusing on claims over objects/property. However, this research appears to introduce the phenomenon to the management literature as a factor for consideration in

designing delivery systems in in the context of information-centric organisations. This research, therefore, makes a contribution to the literature on design of delivery systems within that context.

The MCP literature presents the concept of single pot funding structures to delivery system designers as a potential outcome from the mandate and rules governing the process. However, the review of that literature also revealed a focus on the accuracy of payments in such a funding structure, with no discussion on the related efficiency of that approach.

Pre-determined payment values were described as a means of shortening the time period between claim submission and payment, but can easily result in inefficiency in having to perform payment adjustments. The SPS implementation of partial payments reflects the approach of 'single pot' which used a pre-determined payment value. The sum of all the partial, pre-determined payments led to large scale adjustments. The findings of this research show that the SPS was forced to consume significant organisational resources in payment adjustments as a result of payment adjustments to achieve high levels of accuracy. This research can conclude that the implementation of pre-determined payment values within the single pot funding approach led to inefficient consumption of resource in order to maintain high levels of accuracy.

Cascading interrelation does not appear in either of the bodies of literature and therefore cannot be explored in relation to any existing research. This phenomenon will be further explored in the Conclusions chapter.

10.3.4 Delivery System Design Characteristics

Drawing on the findings from the cases, this section presents discussion on the findings on Delivery System Design Characteristics in relation to the extant literature.

10.3.4.1 Degree of Employee Discretion – Cases & Literature

The findings from section 10.2.1 above describe an inverse relationship between the degree of worker discretion and the organisational goals on

accuracy and efficiency. This parallels the positions found in the extant literature. The work of Buzacott (2000); Lovelock (1983); and Silvestro *et al.* (1992) provide evidence where delivery systems adjust levels of worker discretion in relation to the variety presented to the system to achieve optimal performance levels. As variety increases, so should worker discretion; conversely, as variety decreases, so then should worker discretion.

In the case of the SPS, the strategy of the organisation targeted high levels of accuracy through the utilisation and enforcement of a high evidentiary standard; land boundaries were required to be very accurately measured. Very tightly defined and rigid processes existed to enforce adherence to the process by the worker. This greatly reduced the level of worker discretion. The SPS also adopted programs of work to increase efficiency, utilising the same rigid processes and low levels of worker discretion to increase the flow of claims through the delivery system. Conversely, at the HPD where the evidentiary standard was lower and the definition of accuracy in outputs was subjective, the level of worker discretion was found to be higher in order to deliver an appropriate output to the claimant.

Overall, the SPS was failing to meet performance objectives for both accuracy and efficiency in the delivery system. Chapters 7 and 8 explored the causes of failure. A significant contributor was the level of worker discretion at critical points of task resolution. The low level of discretion did not allow for solutions to match the complication present within the system. The complications required a level of worker discretion (along with higher skill level, which will be discussed below) which was not permitted by the rigidity of the delivery system processes in place.

10.3.4.2 Worker Skill Level – Cases & Literature

The extant literature suggests that worker skill level is linked to several considerations for delivery system design. Kellogg & Nie (1995) draw a correlation between skill level and the volume/variety characterisation of the delivery system; high volume-low variety systems utilise lower skilled workers, while low volume-high variety systems require advanced skill sets. Thomas (1978) connected efficiency goals and worker skills by illustrating the cost

impact of having the lowest-skilled worker possible perform tasks (keeping within acceptable quality parameters). Cost of production is reduced by freeing the ‘expensive labor’ to do the tasks which are most valued by the customer (Thomas, 1978: 162). Further research established connections between worker skill level and whether the delivery system is people- or equipment-based (Wemmerlöv, 1990; Kellogg & Nie, 1995). For equipment-based delivery systems, worker skills levels are low and specialised on a narrow set of tasks; whereas for people-based delivery systems, the worker skill set must be higher to cope with a wider set of tasks.

However, observations show that these delivery systems faced high volume and moderately high customer-presented variety. High levels of variety originated from complications associated with the claims, such as the two forms of interrelation discussed above. This places MCPs in an area of the classification matrix where extant theory suggests avoiding as inefficient. As such, the findings from the cases only partially align with theory. The observed skill levels are presented again below in Table 10.5 for ease of reference.

Table 10.5 – Worker Skill Level by case sub-process

Sub-process	Worker skill level from data - SPS	Worker skill level from data – HPD
Collect claimant data	Low	Med
Input/Maintain claimant data	Low	Low
Perform data cleansing	Med-low	Med-high
Perform primary transformation	Med-high	High
Create output document to deliver to customer	Med	Med-high

One would expect to find low levels of skill across the delivery system in order to achieve the benefits of cost efficiency linked to the ‘connected line flow’ or

'mass service' process types. The findings show the decision-rendering, claim valuation step which comprised the primary transformation activity required much higher levels of worker skill.

10.3.4.3 Degree of Automation – Cases & Literature

Both the MCP and the delivery system design literature support increased levels of automation in delivery systems such as those observed for this research. The MCP literature is clear in supporting automation in the form of information technology to facilitate delivery. There were, however, several positions on the degree of pervasiveness of the technology. Some suggested extreme levels of automation (Heiskanen, 2003), while others caution that ultimately MCPs require a degree of informed judgement by a skilled worker along with automation (Karrer, 2005).

Similarly, the delivery system design literature presents research supporting automation for delivery systems with the characteristics like those in focus here. There is a general agreement that delivery systems with high volume and low variety in outputs will benefit significantly from high levels of automation (Slack, 2010; Silvestro *et al.*, 1992; Hayes & Wheelwright, 1979). In contrast, automation is considered to be less effective in those delivery systems which face lower volumes with high levels of variety in inputs from the customer; e.g. professional services.

The findings of this research present illustrations of delivery systems exhibiting characteristics of multiple positions in the volume-variety archetypes from the literature. The majority of the findings adhere to the rigid characteristics of high volume-low variety design. However, both case delivery systems contain activity requiring fluidity in addressing high levels of variety. This variety comes from the unique nature of the claim information. In each case, an activity requires a higher-skilled worker to render a decision on each claim; this decision is currently unable to be automated. As a result, the variety faced by the system is potentially equal to the total number of submitted claims.

In the case of the SPS, it was observed that the organisational emphasis on high levels of accuracy led to claim data interrelation. High levels of

interrelation equated to higher variety, rendering automation (and the efficiency it brings) ineffective. By contrast in the HPD, a lower standard on decision accuracy allowed the highly-skilled workers to render decisions on individual claims, empowered by high levels of employee discretion.

This research therefore finds evidence of a link between level of automation and the original decision from the mandate/rules on the efficiency/accuracy position. Based on the findings of the SPS case, high levels of automation combined with high levels of decision accuracy presented significant challenges to the SPS delivery system. By contrast in the HPD, high levels of automation combined with a decision point utilising employee discretion enabled the delivery system to avoid the significant challenge presented by extreme emphasis on accuracy.

10.3.4.4 FO/BO Configuration – Cases & Literature

Skinner (1974) and Chase (1978) present seminal work describing an increase in efficiency by limiting customer created disturbances to the delivery system. The customer-facing front office of the delivery system has consistently been described to be the mechanism by which customer-induced variety is attenuated. The reduction or prevention of variety was shown to increase efficiency by increasing standardisation and repetition in tasks. Thus, extant research has long proven that the separation of the front office from the efficiency-driven back office promotes higher levels of efficiency.

More recently, a relationship was drawn between the degree of FO/BO separation and the strategy of the organisation (Metters & Vargas, 2000). As the desire to deliver higher levels of customisation increases, so decreases the degree of separation. Voss *et al.* (2003) describe the impact of technology on such separations; enabling customisation activity for the customer and efficiency for the organisation through the creation of a 'connected core.' Technology allows for separation of the efficiency-driven back office processes, but with a connection to the customer which allows for customisation activity. Fundamentally, the delivery system design literature emphasises the need to limit contact between the customer and the organisation in order to promote efficiency.

The MCP literature also discusses the strategic decision of centralisation or de-centralisation of the delivery system. This literature bases the centralisation decision in the organisational need for contact with claimants. MCPs with designs which provide little to no contact with claimants utilise a centralised delivery system, while those MCPs that allow or encourage claimant contact utilise a de-centralised delivery system (Holtzmann & Kristjansdottir, 2007).

This research explores the impact of the FO/BO configuration on performance within information-centric MCPs. The evidence from the two cases shows that although both case organisations chose to have regional offices, the nature of the work performed in those offices differed greatly. The HPD chose to use the regional office as a means of increasing claimant contact in order to improve the quality of the data used in treating the claim. Workers with medium levels of skill were placed in the regional offices to advise potential claimants on what information was required for claim treatment. The findings show the HPD is de-centralised with a lower degree of separation.

The analysis of the structure of the SPS (chapter 6) shows that the strategic decision to have a de-centralised structure with regional offices was not based on efficiency or customer-contact criteria, but on other non-operational strategic choices. General claim processing work that could have been consolidated into a single location, in fact occurred in all 6 regional offices. There was no significant evidence that the regional offices at the SPS were used for increased claim contact. However, there was also evidence of a high degree of separation between front- and back-offices in order to reduce contact with claimants and promote efficiency.

The findings reveal alignment with the extant literature in this area.

10.3.4.5 Degree of Routinisation – Cases & Literature

The literature on the degree of routinisation advises matching of highly complex, high contact service concepts to a delivery system with low levels of routinisation. This is described as a highly fluid delivery system. Alternatively, low complexity, low contact systems align with high levels of routinisation; or highly rigid delivery systems (Wemmerlöv, 1990).

The findings of this research show that for the SPS, the level of routinisation implemented in the delivery system (highly rigid) was misaligned with the complications in resolving claim-information errors. Plainly put, the delivery system required higher skilled workers with higher levels of discretion in order to resolve the complications associated with cascading interrelation. This placed the organisation in a difficult position, because the mandate and rules guiding the processes established and enabled the factors leading to cascading interrelation.

By contrast, the findings from the HPD describe a more fluid, less routinised delivery system. This delivery system appeared to accept higher levels of contact with the claimant, and some of the complications stemming from the variety introduced by claimant contact. The initial steps of the process openly promoted contact with claimants in order to ensure the collection of more relevant information used to accurately assess the claim. The assessment stages provided individual assessment of each claim based on the information supplied by the claimant. These two steps provide enough fluidity in the delivery system to present findings which do not align to the recommendations to the existing literature.

The findings show that the HPD delivery system bears the characteristics of both highly-rigid and, at points, highly-fluid design. While the existence of both designs in a single organisation was shown to enable optimal delivery of the service concept (Ponsignon *et al*, 2011), that research presented findings on multiple delivery systems to deliver multiple service concepts within one organisation. In this case, we find a single service concept and a single delivery system which bears multiple characteristics at different points.

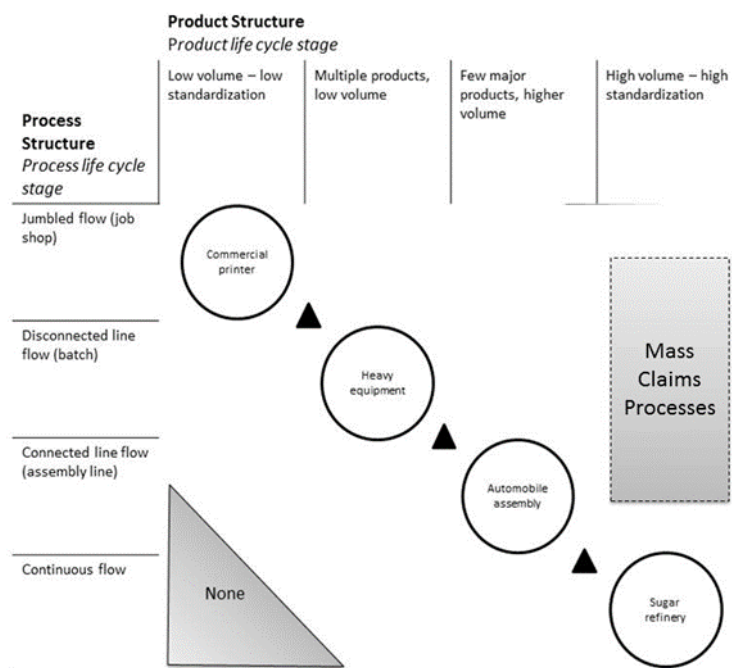
Comparing the SPS to the HPD, the findings indicate that the application of a single set of characteristics resembling highly rigid or highly fluid delivery systems will not deliver both efficiency and accuracy in information centric mass claims processes unless data quality is known to be very high. In order to manage the high volumes with a high level of accuracy, the organisations require a mix of both levels of routinisation at the relevant points of the treatment process.

10.4 Applicability: delivery system classification literature

At the outset of this thesis, the characteristics of MCPs were compared against the literature on delivery system classification. It was determined that MCPs were located off the focal diagonals presented by the Hayes & Wheelwright (1979) Product-Process matrix, and the Silvestro (1992) classification schemes.

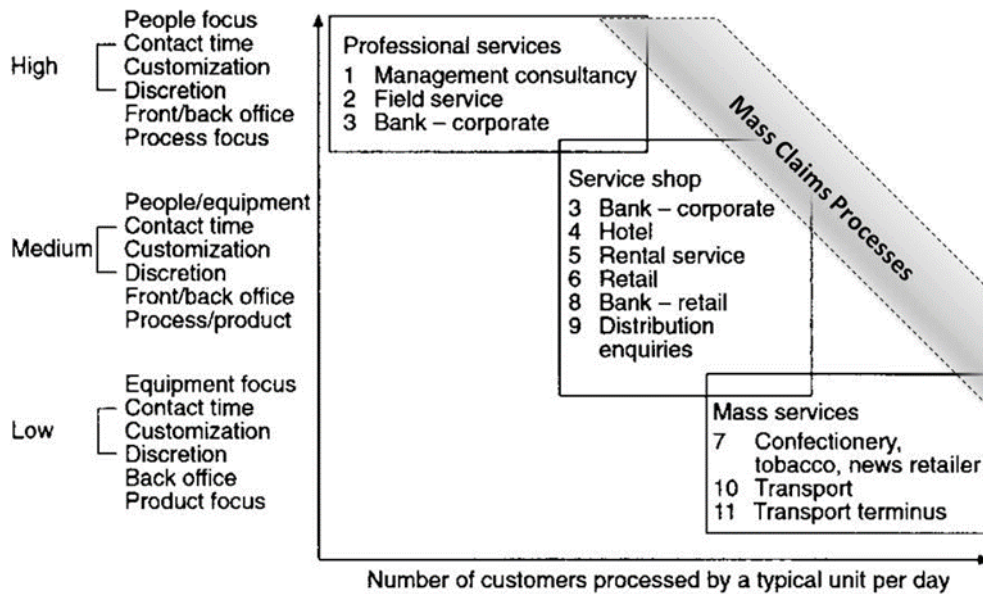
The summary position using the collected characteristics from both MCPs place the organisations across the Hayes & Wheelwright borders of '*jumbled flow (job shop)*', '*disconnected line flow (batch)*', and '*connected line flow (assembly line)*' due to the presence of all three sets of characteristics. This is illustrated in Figure 10.7, below.

Figure 10.7 – MCPs within the Product-Process Matrix



Within the Silvestro *et al* (1992) classification scheme (shown here in Figure 10.8), a similar spread across all three classifications is found when the characteristics of the MCPs delivery systems are applied.

Figure 10.8 – MCPs within the Silvestro *et al* (1992) classification scheme



Thus, placing the delivery systems of these organisations within a single archetype in the classification scheme is both misleading and unhelpful. What emerges is the importance of the design characteristics associated with each of the component activities, and how each should be analysed against each of the process archetypes (illustrated on the following page in Table 10.6).

Table 10.6 – Summary of Design Characteristics as compared to extant theory

Characteristic	Recommended position from literature for high volume / low variety	SPS		HPD	
		Position of SPS from findings	Degree of Alignment with Literature	Position of HPD from findings	Degree of Alignment with Literature
Degree of Employee Discretion	Low	Low	High	Med-High	Partial
Worker Skill Level	Low	Varied	Partial	Med-High	Low
Degree of Automation	High	High	High	Med-High	Partial
FO/BO Configuration	De-Coupled	De-Coupled	High	Both Coupled and De-Coupled	Partial
Degree of Routinisation	Highly Rigid	Highly Rigid	High	Both Rigid & Fluid	Partial

The observations from both organisations show that the case organisations do not benefit from the application any single delivery system classification label. The SPS was shown to require a mixture of both high-volume/low-variety activity centres and lower-volume/high-variety activities in order to deliver the service concept. However, the SPS was configured align with mass service delivery characteristics; low worker skill levels, low employee discretion levels, high levels of automation, and decoupled FO/BO configuration. This highly-rigid delivery system did not align to the work presented to the system, and as a result the delivery system struggled to meet organisational targets for success. The delivery system failed when faced with highly complicated and confusing situations arising from claim interrelation.

The HPD, on the other hand, applied design characteristics which were not aligned to extant theory. Rather than applying highly rigid characteristics to a high-volume / low-variety delivery system, the HPD implemented a more fluid

delivery system in the front end of the process; and the crucial decision-rendering point in the process.

At the front-end, this allowed the HPD to attenuate the variety the claimant might have introduced into the delivery system. Only input relevant to the treatment of the claim was submitted; potentially confusing, misleading, or incomplete evidence was stopped and (where possible) adjusted prior to acceptance into the treatment process. This had the effect of reducing the overall workload at points later in the treatment process.

This chapter discussed the findings of this research both independently and within the context of the extant literature. The following chapter will draw together these findings and present a set of conclusions, limitations, and areas for future research.

11 Conclusions

This chapter brings together the findings of the previous chapter in order to draw a set of conclusions for this thesis. First, the objective of the research, the research question, and the research process will be revisited. This chapter also discusses the contribution this research makes to knowledge in the academic study of delivery system design and to practicing managers in the area of Mass Claims Processes. The limitations of the research are considered and the opportunities for further research are identified.

11.1 Research Summary

The main objective of this thesis was to explore the design characteristics of delivery systems in information-centric Mass Claims processes. Reviews of the relevant literature presenting research on both Mass Claims Processes and delivery system design established the theoretical foundations of this research and identified the need for research to address under-explored areas in these literatures.

From the Management literature focusing on delivery system design, the following under-explored areas were summarised and presented in Chapter 4:

1. The application of postponement in this context (information-centric organisations).
2. FO-BO configuration where the front-office is designed for efficiency, while the back-office is designed for customisation.
3. The use of the Service Strategy Triad (SST) in a non-competitive market context.
4. The applicability of the SST where alignment is limited to a single component.
5. Empirical research on operational challenges within the context of Mass Claims Processes.

From the MCP literature:

1. The management of variety of inputs from claimants in order to increase efficiency.

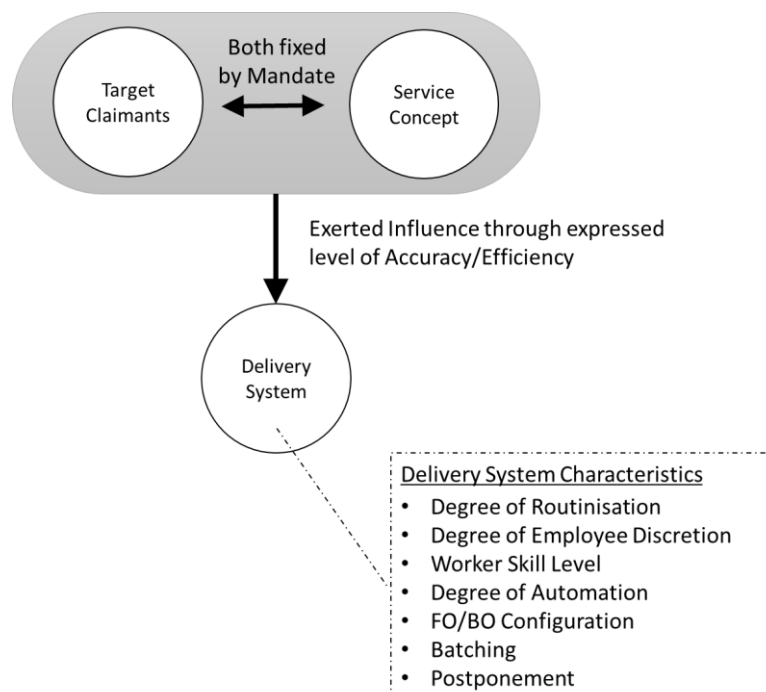
2. The emergence and management of interrelation of claim data.
3. The effect of recursive movement of claims within the claims treatment process.
4. The lack of research to inform design of the delivery system for MCPs.

The research question which aimed to address these gaps is:

- What are the delivery system design characteristics for information-centric Mass Claims Processes?

Through investigation conducted to address this research question, this thesis explored the delivery system design considerations which contribute to optimal performance for a Mass Claim Process. The focus of the research was illustrated by the conceptual framework first presented in chapter 4, and presented here as Figure 11.1. This conceptual framework provides a visualisation of how the rules governing the organisation influence the design of the delivery system. The framework also illustrates how the related set of characteristics influences the design of the delivery system.

Figure 11.1 – Conceptual Framework for this research



The research methodology chapter described how the research design utilised data collection methods aligned to the research objective. Qualitative, multiple

case-based research was used to explore the delivery systems and the context in which they operate. To enhance the reliability of the findings, the study utilised the principles of the chain of evidence (Miles & Hubermann, 1994; Yin, 2013). Case interview protocols were used in interviews for both cases; standardised modelling techniques were employed to ensure consistency in approach. Findings from the review of the literature inform the research question; the research question clearly informs the conceptual framework and data collection protocols; and the data collected informs the research question.

The use of case-based research provided both the opportunity to examine areas known to the extant literature, as well as explore the phenomena which emerged from observations of the delivery system in its practical context. Multiple cases within the Mass Claims context were examined in order to develop more robust, testable theory; this approach enhances the external validity of the findings of the research through the use of triangulation from separate data sources.

To enhance the internal validity of the findings, additional data triangulation was provided in cross-case analysis. This was undertaken by comparing the multiple delivery system models within the SPS to the delivery system from the HPD. The similarity of findings from separate data sources provides confirmation of the existence of the observed relationships in the focal delivery systems. Further internal validity was provided when the causal relationships identified in Phase One of the SPS research were later confirmed using different methodological approaches in Phases Two and Three. The discovery and confirmation of the findings from the different methodological approaches provides multiple method triangulation to enhance the internal validity of the study.

11.2 Contributions to the literature

This section will draw from the findings presented in the previous chapter to present those findings which make contributions to the MCP and delivery system design literatures.

11.2.1 Service Strategy Triad

The findings of this research provide further contextual evidence to extend the base of knowledge associated with the Service Strategy Triad (Roth & Menor, 2003). More specifically, this research extends the base of empirical knowledge associated with the SST. The discussion illustrates that in the context of Mass Claims Processes, the design of the delivery system is the only of the three entities able to adjust to create strategic alignment for optimal performance. In this context, given both a tightly legally defined service concept and target market, the delivery system bears the responsibility of creating strategic alignment.

The conclusion which can be drawn from the case evidence is that the legal mandate must consider the operational ability of the delivery system in order to successfully meet organisational goals. In the case of the SPS, the mandate required an evidentiary standard that was set very high; this was incompatible with the organisational goals requiring high levels of both efficiency and accuracy. The SPS delivery system failed to meet organisational goals on both counts. In the case of the HPD, the evidence suggests that the mandate contained an evidentiary standard that was more relaxed. This allowed the HPD delivery system to achieve organisational goals on efficiencies through increased standardisation in decision creation.

Thus, this research has significant implications for practitioners within the context of MCPs. This research informs the decision-making processes of those responsible for shaping and finally establishing the legal decisions which form the foundations of the rules by which MCPs must operate. This has the potential of affecting the decisions of judges and legal commissions responsible for creating mandates for MCPs. Considering the outcome of this research may well affect mandate decisions through an understanding of the capabilities of the delivery system. These mandates, which include the highly-impactful position on evidentiary standard, must provide the designers of the delivery system an operating space where organisational goals can be achieved.

These findings extend the knowledge base of the Service Strategy Triad literature to include contextual research in areas where the traditional, three-way alignment SST model does not apply.

Having described and evidenced the relationship between the elements of the Service Strategy Triad in MCPs, the relationship between the mandate and the design characteristics of the delivery system will be illustrated in the following section.

11.2.2 Delivery System Design

There are several contributions made here to the literature for design in information-centric MCP contexts. This section will draw on evidence and findings from the cases to present a set of conclusions related to delivery system design in this context.

This research presents a thorough examination of delivery system design characteristics of the two cases. From the discussion above, it is clear that a relationship exists between characteristics of the mandate and the resultant design of the delivery system. The mandate must consider the source data available to the delivery system for decision-making in the establishment of the evidentiary standard. From the discussion in section 2.3.2, the evidentiary standard in MCPs is the level to which the claimant is required to prove, or substantiate their claim. This standard can be very high (e.g. 'clear and convincing evidence'); or very low (requesting only that claimants show 'plausibility').

The evidence from the cases shows that SPS had a very high standard of evidence, which required and consumed a great deal of organisational resource in order to validate that evidence and produce a highly accurate output. By contrast, the HPD had a lower standard, which (while still providing compliance with the law) meant far less consumption of organisational resource scrutinising and investigating inputs in order to produce a valid output.

The SPS did not perform optimally. SPS was observed to have adopted the recommendations found in the extant literature, which recommends a highly rigid approach in order to deliver against a high-volume, low-variety demand

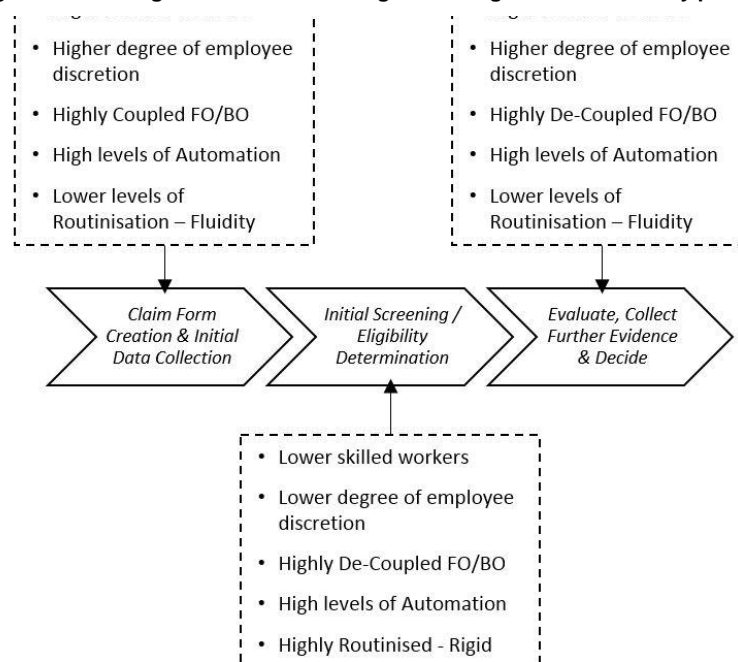
pattern. High levels of automation were implemented, along with low levels of worker discretion, and lower skilled workers were utilised.

By contrast, in its successful performance against objectives, HPD performed optimally through the implementation of characteristics in a delivery system which did not conform to the recommendations of the extant literature. Instead, the HPD granted higher levels of discretion to higher skilled workers at two particular points in the process. Based on the case observations these focal points were:

- The point at the outset of the process where claimants submitted claims and supporting documents. Trained workers would review the submitted information in order to attenuate variety in the informational inputs provided by claimants, reducing the potential for that variety to disrupt the second of these focal points:
- The claim evaluation/decision creation stage, where lawyers would review the submitted information, determine its validity, and render a decision.

These specific points and the related design characteristics can be compared against the generalised process model of an MCP. The application of the characteristics to the generalised model is shown in Figure 11.2.

Figure 11.2 - Design Characteristics for general stages of MCP delivery processes



The first conclusion which can be drawn on the characteristics of MCP delivery systems is that the application of a single set of characteristics adhering to Wemmerlöv's (1990) '*highly rigid*' or '*highly fluid*' delivery systems will not deliver both efficiency and accuracy in information centric mass claims processes, unless data quality is high. In order to manage high volumes with a high level of accuracy, the organisations require a mix of both rigid and fluid design at relevant points of the treatment process, as shown above in Figure 11.2. These conclusions do not directly support, but instead complement the findings of Ponsignon *et al* (2011). Ponsignon *et al* present evidence of multiple delivery systems of either rigid or fluid design within a single organisation in order to create optimal performance.

This research presents an important contribution of empirical evidence of an organisation with a single delivery system shaped at different points by both rigid and fluid design principles. This finding presents new knowledge to designers of delivery systems and researchers alike that avoids the traditional dichotomous approach of a delivery system conforming to one characteristic and not the other. The evidence presented in this research suggests the existence of a context where the presence of both rigid and fluid characteristics are necessary to optimise performance of the delivery system.

Wühler & Niebergall (2008) focus on standardisation as the means to efficiency (lower claims processing time and lower operating costs). This research adds to that literature with findings showing standardisation can provide accuracy and efficiency is possible in those delivery systems where data quality is high. This is further discussed later in this section.

Varying levels of automation

It is noted that each of these case studies required a necessary and crucial '*decision making*' stage. This presents clear challenges to automation supporting the transformation of such high volumes of inputs (claims). In both cases, the delivery systems were thoroughly underpinned by automation facilitating flow, storage, and retrieval of claims and their related information.

The high level of automation at each stage of the process is reflected in Figure 11.2 above.

It was observed that there were points in both claim treatment processes where automation was not possible; those points where employees were required to intervene and exercise judgement to create the requested output. At these points, there exists a point of analysis and decision-making which cannot be automated. The HPD presents evidence of benefit gained through an additional worker-based analytical decision at the outset to attenuate variety presented by the claimant, thus facilitating smoother transformational activity in subsequent steps.

Drawing on this analysis, the research evidence supports the conclusion that high levels of automation clearly support efficiency within the delivery system, as was noted in the extant literature (Arbitration, 2009; Heiskanen, 2003; Henzelin *et al.*, 2006; Holtzmann & Kristjansdottir, 2007; Karrer, 2005). However, this research concludes that delivery system design for MCPs must consider these worker-centric moments of decision as crucial points where the worker alone decides on the output which is created for the claimant. The early-stage attenuation activity is, again, another worker-centric analytical point. Without these moments of analysis and consideration, it could be argued that the level of accuracy (and therefore the level of 'justice') provided to the claimant is significantly diminished.

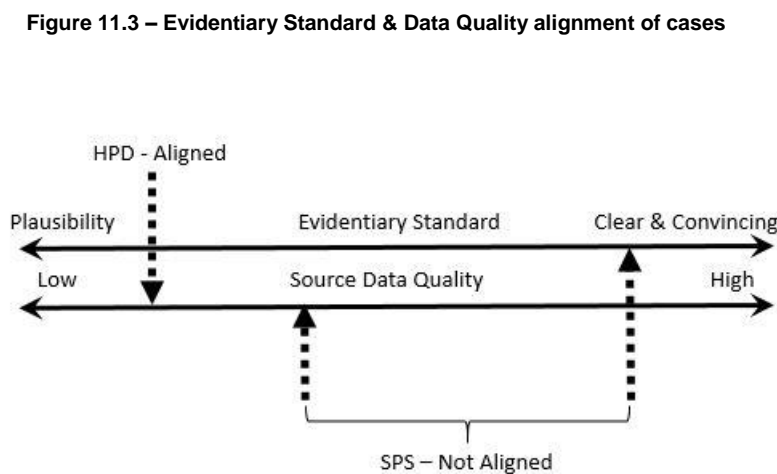
Therefore, this research presents the important finding that MCPs which propose to provide higher levels of 'justice' to claimants must accept a certain loss of automation, and therefore efficiency, at those points in the transformation process where analysis and decision-making occur. Removing these points increases efficiency at the cost of accuracy and the provision of justice.

Considering the previously mentioned discussion centring on the desire to increase efficiency in legal processes, this research appears to make an important empirical contribution to that emerging area. The further application of theory surrounding management of bottlenecks (such as the Theory of Constraints) may provide helpful insight for practitioners.

Data Quality and Evidentiary Standard

There was a similar challenge which both MCPs in this study faced; poor quality data available for the required output decision. However, prior to the establishment of the delivery system, the HPD was aware of this challenge and the evidentiary standard was set to align. The SPS, by contrast, was not aware of the poor quality of their data. The evidentiary standard was too high for the data to support. This conclusion allows the following continua to be drawn for the two concepts and the observed positions for both cases.

Figure 11.3 shows the HPD's evidentiary standard and source data quality align on the parallel continua; the SPS was misaligned with unexpectedly poor data quality but with a high evidentiary standard.



The observed characteristics of the SPS system conformed to the recommendations of the delivery system design literature for a high volume – low variety system. The misalignment occurred when significantly higher levels of variety were introduced to the system as a result of the poor data quality. These findings form the basis of the following analytical tools which may provide value to practitioners involved in the design of MCP delivery systems

First, Figure 11.4 presents an analytical matrix which illustrates the relationship between the MCPs Evidentiary Standard and the quality of the data used in decision-making. This matrix focuses on alignment between Evidentiary Standard and Data Quality, and the causes of misalignment. This section will discuss the four quadrants of the matrix, labelled A, B, C, and D; each of which draws on case evidence and related analysis.

Figure 11.4 – Areas of alignment between Evidentiary Standard & Data Quality for MCP delivery systems

		Evidentiary Standard	
		Low - Plausibility	High – Clear & Convincing
Quality of Available Data	Low	<p>A</p> <p><u>Alignment</u></p> <p>Efficiency can be gained through the acceptance of a degree of inaccuracy. <i>“Very Rough Justice”</i></p>	<p>B</p> <p><u>Misaligned</u></p> <p>Evidentiary Standard is too high for the data to support.</p>
	High	<p>C</p> <p><u>Misaligned</u></p> <p>Higher degrees of accuracy in decision-making available. The provision of ‘justice’ can be improved.</p>	<p>D</p> <p><u>Alignment</u></p> <p>Efficiency and accuracy possible through application of known mass delivery characteristics. <i>“Pure Justice”</i></p>

Quadrant A describes the scenario whereby the Evidentiary Standard and the quality of the available data are both low. This quadrant describes the provision of rough justice; the extreme points of placement to the upper left are what this research calls very rough justice systems. Quadrant B combines low quality available data with the choice of a high evidentiary standard. Quadrant C describes the scenario where high quality data is available, but a low evidentiary standard is decided upon. Quadrant D combines high quality available data with high evidentiary standard. This quadrant reflects a more traditional combination found in most judicial settings, where the provision of justice is much higher. The extreme points of the lower right push toward what this research calls ‘pure justice’.

Drawing on the findings from the cases, these quadrants can now be connected to relevant design considerations. Figure 11.5 below presents design considerations for practitioners in this context.

Figure 11.5 – General Design Considerations on alignments between Evidentiary Standard & Data Quality

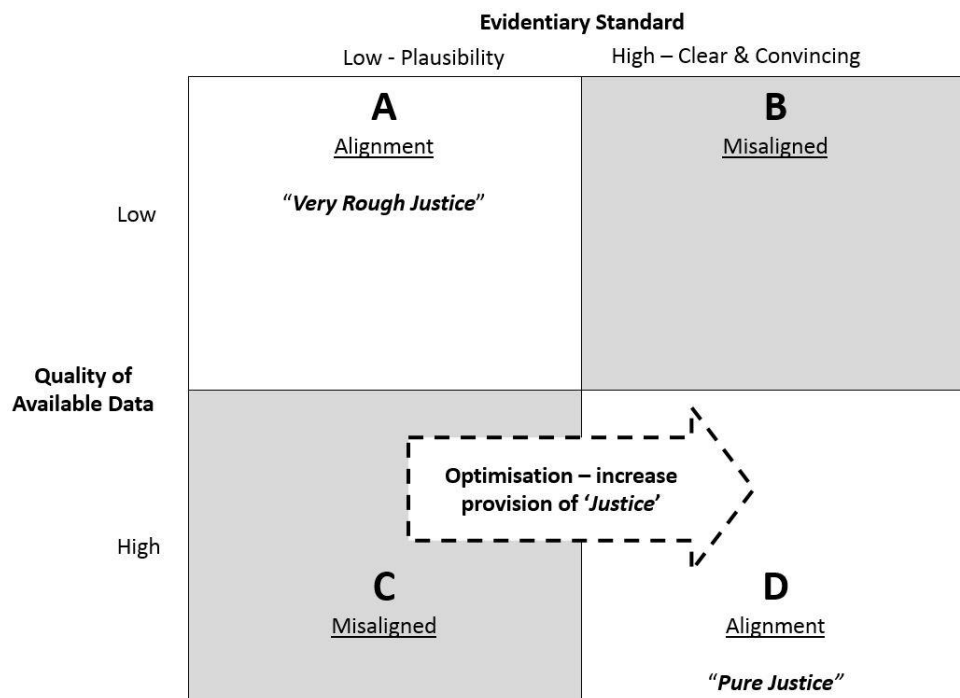
		Evidentiary Standard	
		Low - Plausibility	High – Clear & Convincing
Quality of Available Data	Low	<p>A <u>Alignment</u></p> <p><i>"Very Rough Justice"</i></p> <p>Optimised by Fluid-Rigid-Fluid design characteristics to achieve efficiencies in the provision of rough justice.</p>	<p>B <u>Misaligned: Over-taxed</u></p> <p>Delivery systems in this quadrant require high levels of highly skilled resource consumption over longer time periods. This is not an optimal position; costly and time consuming.</p>
	High	<p>C <u>Misaligned: Underperforming</u></p> <p>Delivery systems in this quadrant can deliver higher levels of 'justice'; the data supports the ability to increase accuracy of decisions.</p>	<p>D <u>Alignment</u></p> <p><i>"Pure Justice"</i></p> <p>Optimised by Rigid design characteristics to achieve efficiencies in the provision of justice.</p>

We recall that the foundational goals of Mass Claims Processes are to provide both swift justice and due process; understanding that there is an ever-present need to accept a level of 'rough justice' due to the high volumes of claims treated in a limited period of time. This research intended to understand how design of the delivery system could reconcile due process (accuracy) and swift justice (efficiency) to reach an optimal level of performance.

The figure above describes the combinations of the two key emergent variables which appear to have the greatest influence on the appropriate choice of delivery system characteristics. The first misalignment scenario (quadrant C) combines a low evidentiary standard with high quality data. In this instance, the data available can support higher levels of accuracy in decision-making; justice does not have to be '*rough*' in this scenario. Therefore, this combination results in sub-optimal performance in accuracy. Optimisation of this inefficient position would suggest a higher evidentiary standard, forcing an increase in accuracy in the decisions produced. Such a shift in evidentiary standard would shift the delivery system from quadrant C to quadrant D, delivering a higher levels of

‘justice’. This is shown in Figure 11.6, where the movement from quadrant C to D is illustrated by an arrow.

Figure 11.6 – Optimisation toward ‘Pure Justice’

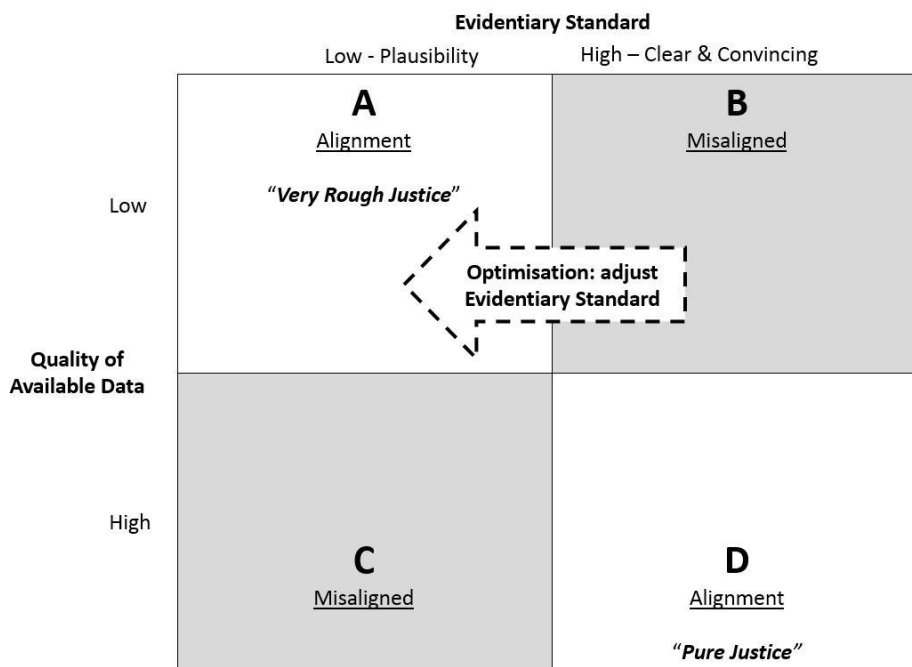


In quadrant D, the available data is clear and high-quality to support very high standards of evidence. In this quadrant, proof supplied is beyond doubt. Such high quality evidence makes decision-making clearer and more rapidly completed. In such systems, efficiency can be achieved through the implementation of a largely ‘*rigid*’ delivery system (low worker skill levels, low degree of discretion, de-coupled FO/BO, highly automated).

The second misalignment scenario (quadrant B, from Figure 11.4, above) combines a high evidentiary standard with low quality data; this was the emergent position of the SPS. In this instance, the evidentiary standard was too high for the data to support. Optimisation from this position could take two potential approaches which lead to the two ‘alignment’ quadrants.

One choice would be to relax the evidentiary standard, increasing the ‘*roughness*’ of the justice provision. This is illustrated in Figure 11.7, which shows movement from quadrant B to quadrant A.

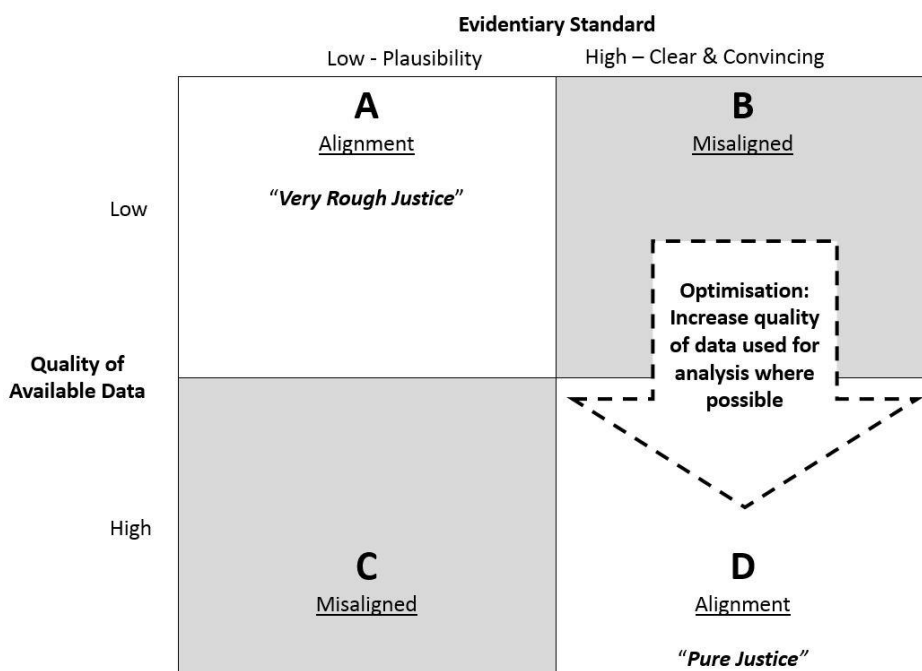
Figure 11.7 – Optimisation toward ‘Very Rough Justice’



In Quadrant A, due to the poor quality of the evidence: discretion is granted; judgements require higher levels of skilled analysis; greater contact with the customer is beneficial to clarify evidence; and there is very little routinisation (thus making automation more difficult.) In this quadrant, optimisation of performance meant adopting the position of delivering ‘*rough justice*’; sacrificing accuracy for efficiency in claim treatment in order to meet organisational goals on timeliness and cost. In this approach, more ‘*fluid*’ characteristics are utilised in order to produce decisions while accepting a degree of uncertainty about the accuracy of that decision. This is the area that best describes the delivery system at the HPD.

The second choice of optimisation from the misalignment associated with quadrant B, is to improve data quality and shift toward quadrant D. This is illustrated here in Figure 11.8, reflecting a shift from quadrant B to quadrant D.

Figure 11.8 – Optimisation through improving data quality



As described above, in this quadrant, the higher quality of the data allows more rigidity in the delivery system, supporting further automation, greater efficiency, and higher levels of accuracy in decision-making.

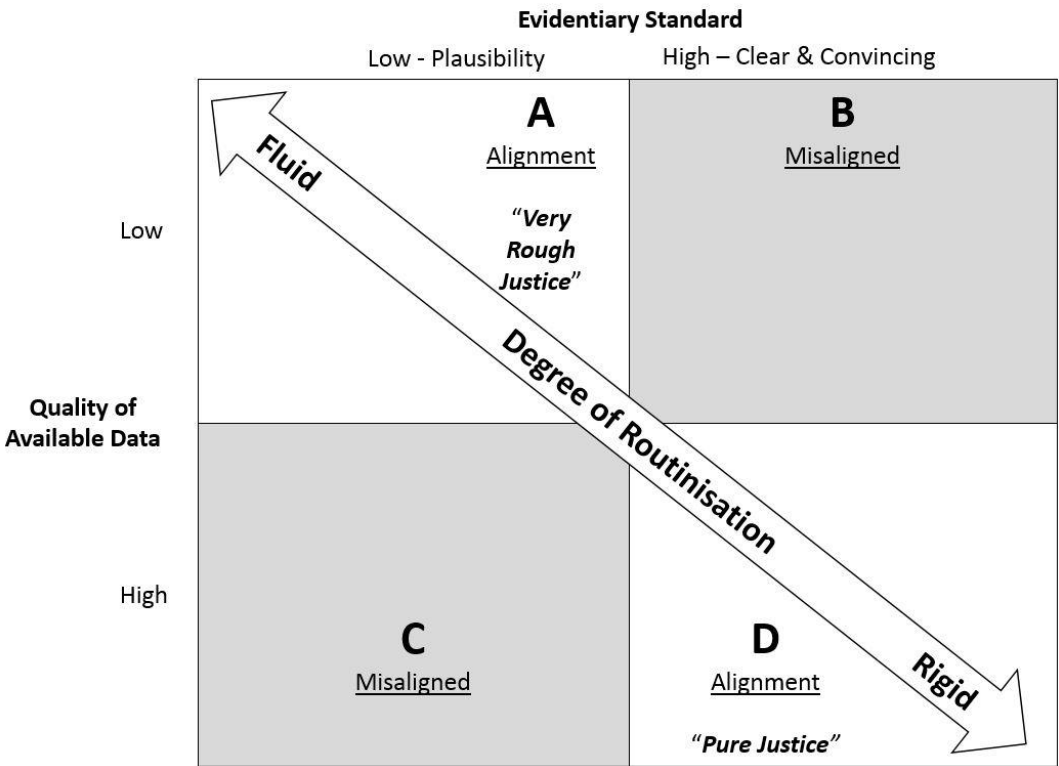
The SPS mandate and rules intended to place the SPS in quadrant D. However, observations of the SPS placed the emergent delivery system firmly in misaligned quadrant B. The rigid design of the original delivery system was ill-suited to address the emergent set of challenges and failed to meet organisational goals. In order to meet goals on accuracy, the SPS had to expend excessive organisational resources efforts to improve data quality before rendering a decision. This data improvement exercise required the use of workers with skill levels higher than had been anticipated and longer time frames than the SPS rules allowed. Adopting these characteristics shifted the organisation to the lower-right quadrant of 'high quality data' and 'high evidentiary standard.'

Importantly, quadrant D appears to be the only instance where a Mass Claims Processes can achieve both efficiency and accuracy in outputs. This is dependent on very high data quality data in a very rigid system with

standardised decisions and a limited variety of potential outputs for the claimant. This research contributes empirical research to delivery system designers emphasising the appropriateness of efficiency measures associated with rigid system characteristics in MCPs where the evidentiary standard and data quality are both high.

This data suggests a diagonal associated with the Degree of Routineness. Drawing on the above observations and conclusions, fluid delivery systems are best suited to MCPs with low evidentiary standards and low quality available data; while rigid delivery systems are best suited to MCPs with high evidentiary standards and high data quality. This conclusion is illustrated in Figure 11.9.

Figure 11.9 – Alignment of Rigid/Fluid with Evidentiary Standard & Data Quality



This research emphasises the importance of understanding the need for increasing levels of fluidity in delivery systems using ambiguous or contentious information in decision-making. It was earlier established that MCP delivery systems are divided into sections with very rigid characteristics and sections with very fluid characteristics. More rigid sections of the claim treatment processes optimise levels of efficiency where possible, increasing flow of the large volume of claims. However, each claim treatment process also

possessed points of additional fluidity to manage ambiguity from claimant inputs. The combination of the two sets of characteristics present appears to be needed in order to manage the tension between the need for the provision of justice, while providing value for money linked with public funds.

The models above offer academics and practitioners alike insight into potential challenges which may arise in the establishment of such legal processes. Given the increasing utility offered by technology in support of these organisations, understanding of the quality of the data to be used is of paramount importance, as this research highlights. Therefore, the insight offered by the alignment model to designers of future mass claims processes appears to provide guidance on how to avoid costly errors in design (like those studied here). Each of the above models provides prescriptive advice on improvements available given the state of the quality of data and/or the evidentiary standard.

These findings contribute to the discussion currently taking place on the need for increasing levels of efficiency in large scale legal processes (see section 11.2.5 for additional discussion on applications in this context).

11.2.3 Postponement

This research contributes to the body of literature which describes the application of postponement strategies in services, which was earlier identified as recognised gap in that literature. The findings on the application of postponement strategies in the context of information centric MCPs appear to provide more contextually-appropriate evidence to inform this area of research.

The long-held view that postponing customisation activity as late as possible in the delivery process; thus taking advantage of efficiencies of standardisation in the early stages of production can be traced back to Alderson (1950) and Bucklin (1965). More recently, Yang *et al* (2004) provided evidence that little organisational benefit is gained from the application of postponement in easily predictable environments.

This research has generated findings which show that very early action of customisation provides efficiency benefits for information-centric organisation

when placed close to the outset of the process. In this way, the delivery system is able to attenuate customer-induced variety which restrains and delays the primary transformation task of rendering outputs.

This research presents a contribution to knowledge and to practitioners which suggests that information centric delivery systems using a wide range of potential inputs from the customer should reject postponement. Designers of delivery systems in this context should instead strive for the converse goal of moving the point of customisation closer to the outset of the customer-contact activities. The impact of this decision has significant effect on the ability of the delivery system to deliver on goals of efficiency and/or 'justice'.

This research provides empirical evidence which clearly rejects the position of Bucklin, and also presents evidence to indirectly support the position offered by Yang *et al.* The observations of both the HPD and SPS provide evidence of delivery systems which face unpredictability from the customer; both delivery systems were not observed to have implemented postponement strategies. Further, there was evidence that the lack of postponement improved performance through the attenuation of variety. The combination of these factors lends support to the position of Yang *et al.*, in that organisational benefit was gained through the avoidance of implementing postponement strategies.

The limited amount of research in this area was highlighted in the earlier review of the literature (section 3.4.11); where calls for empirical research on the application of postponement in service-setting, specifically in information-centric environments, were noted as relevant to this research. This research makes an additional empirical contribution to the delivery system design literature on postponement by responding to the calls for additional research in these specific contextual gaps as proposed by Yang *et al.* (2010).

11.2.4 Interrelation

The evidence from the research revealed three distinctly different types of interrelation present in the case studies: '*single pot interrelation*', '*competing claim interrelation*' and '*cascading interrelation*'. The discussion chapter highlighted the existence of competing claim interrelation in the MCP literature;

cascading interrelation was stated to be a new concept, lacking research in either body of literature. This section will first explore the contributions to knowledge of this research on the topic of Single Pot interrelation.

Single Pot Interrelation

The findings on Single Pot Interrelation presented evidence of the additional costs incurred should the MCP, using a single pot funding approach, deliver any payments to the claimant prior to the completion of the entire body of valid claims. In the exploration of the MCP literature, it was shown that pro rata payments guarantee that the sum total of payments does not exceed the amount in the single pot. However, in a single pot approach, payment value is determined by the total number of successful claims, which requires the completion of the treatment of the entire body of claims. This option also results in claimants waiting the longest period before any payment is rendered.

Providing claimants speedy partial payments of the estimated final amount, by definition, requires at least one additional top-up payment to be made. The evidence from the SPS case shows the second payments consumed additional organisational resource.

SPS provides evidence of a single pot funding approach in a delivery system with very high levels of accuracy. When these factors are combined with poor data quality and high levels of interrelation, the number of payment adjustments increased significantly in order to maintain 'accuracy' in payments to the claimant.

The conclusion of this research is that pro rata payments from a single pot scheme consume organisational resources through the need for rework. This situation lowers the overall efficiency of the delivery system. These findings make a contribution of empirical evidence to extend the breadth of contextual knowledge around MCPs implementing single pot funding approaches.

Competing Claim Interrelation

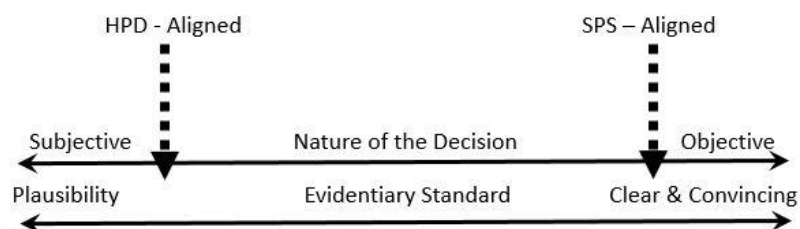
The extant literature exploring the operational challenges of MCPs recognised the existence of competing claim interrelation in several past MCPs. Examples

of these occurrences were presented and discussed in section 10.6.3. In each of the cases examined here, the claims process adjudicated claims which focused on the possession of an asset (i.e.: SPS: arable land; HPD: housing/property); multiple claimants could attempt to claim that right over a single asset, thus creating competing claims.

The discussion section presented a summary which showed that neither the SPS nor the HPD faced difficulties in resolving these interrelationships. However, the discussion raised the connection between the nature of the data involved in the interrelation, and the characteristics of the delivery system tasked with the resolution activity. Observations showed that the SPS utilised lower skilled workers given no discretion to resolve competing claim interrelation in highly objective data (land size and utilisation); while the HPD utilised workers with higher skills/increased discretion using highly subjective data (the best available documentation regarding rightful occupancy). Resolving competing claim interrelation was considered ‘business as usual’ for both organisations.

The following figure presents the observed link between the evidentiary standard and the nature of the decision, to delivery system design.

Figure 11.10 – Competing Claim Interrelation resolution



The ‘rigid’ approach of the SPS used specialist trained workers, not highly skilled, to obtain accurate measurements for the land involved in the competing claim interrelation. This aligns well with the objective nature of the land measurements required in the high level evidentiary standard. The HPD’s more ‘fluid’ approach used more highly skilled lawyers to judge the materials available to render a subjective decision on legal occupation of a property. This aligns

with the low evidentiary standard, due to the loss of concrete evidence destroyed during the armed conflict in the region at the time.

Given that neither organisation faced difficulty in resolving this kind of interrelation, the conclusion of this research on this topic is that the optimal delivery system design for resolving competing claim interrelation is linked to the quality of the data available and the evidentiary standard. The resolution of competing claim interrelation in MCPs with low evidentiary standards which produce a subjective decision, requires high skilled workers with high levels of discretion granted to them in order to meet accuracy standards (comply with the law). Conversely, MCPs with high evidentiary standards producing objective decisions can find efficiency in utilising lower-skilled workers granted lower levels of discretion.

Cascading Interrelation

It was the finding of this research that cascading interrelation was a previously unidentified phenomenon to both the MCP and the delivery system design literature. The significance of the impact of cascading interrelation on resource consumption for the SPS delivery system was described in detail in chapters 6 and 8. The factors present in the SPS which led to cascading interrelation (primarily entitlements, and the ability to trade those entitlements) were not present in the HPD. From observations of the HPD, the organisation did not face cascading interrelation.

For the SPS, the process of resolving cascading interrelated claims required workers to thoroughly examine the data of each of the claims involved in the connection. The investigation was required to determine several factors: the origin and subsequent adjustments to the entitlement; its most current proper value characteristics (amount of land to which the bearer is entitled to claim); the accurate amount of any divisions of the entitlement; the subsequent claimants who used that entitlement; and the amount of adjustment each of the subsequent owners faces as a result of the changes in value characteristics.

The potential for confusion was high. The workers tasked with these investigations were observed to have relatively higher skill levels for the SPS,

but remained restricted by the lack of discretion in producing outputs. The required level of accuracy in the decision, as required by the rules, meant that discretion was not permissible. The combination of high levels of confusion, lack of discretion, and requirements for accuracy resulted in long time frames for resolution as the details of the scenario were carefully examined and illuminated. The length of time required often pushed the delivery system past its deadlines, resulting in financial penalties against the organisation.

The previous chapter presented discussion on the connection between cascading interrelation and the skill level and discretion level of the worker responsible for the resolution of the cascading interrelation. The production of highly accurate decisions which 'de-tangle' the large group of claims involved collected in the cascading interrelation requires highly-skilled workers competent enough to generate accuracy from highly-complicated situations. The converse can then be deduced, if the required accuracy level is much lower, *e.g. 'rough justice'*, then the skill level of the worker could then be lower.

Earlier discussion established the parallel connection between evidentiary standard and data quality; this section draws further connection with these constructs to skill level and discretion required to address interrelation. Given an organisational goal of high degrees of accuracy, objective evidence (such as physical inspections to determine boundaries, land measurement, etc.) can be met by workers with a moderate/medium skill set. However, in the cases where the evidence is more subjective and requires the judgement of the worker, the worker requires a high degree of skill to ensure accurate outputs for the delivery system.

The aligned constructs are presented below in Figure 11.11 for side-by-side comparison, based on the conclusion drawn above. The continua present an aligned set of characteristics upon which a delivery system can be placed vertically to determine optimal alignment.

Figure 11.11 – Design characteristics for resolving interrelation

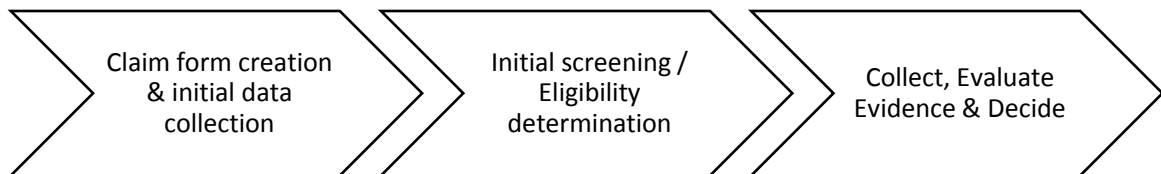


11.2.5 Information-centric organisations

Conclusions, to this point, have focused on specific constructs found in MCPs. These conclusions present new knowledge for application to this particular domain. Moving to broader applications of this research, this section presents brief remarks about the wider context of information-centric organisations and the growth of the base of knowledge in this context.

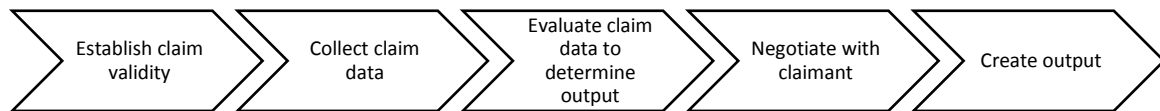
The extant literature was summarised earlier to present a generalised mass claims process (chapter 2):

Figure 11.12 – Generalised MCP process



Researching contextually similar transformations, the processing of insurance claims, (Apte *et al.*, 2010; Apte & Cavaliere, 1993) describe a similar widely applied generalised process:

Figure 11.13 - Generalised insurance claim process; from Apte *et al.* (2010)



There are clear similarities in these approaches. Of specific importance in each case is an 'evaluation' activity is performed by a relatively higher-skilled member of staff in order to create a decision. The decision is guided and bound by the rules governing the process. These activities were also present in both the SPS and the HPD.

When viewed in relation to the extant knowledge drawn from the Operations Management (OM) discipline there are points of relevance for generalisation to information centric organisations. In observing insurance claims processing, Apte *et al.* (2010) emphasise the importance of identifying two elements: the critical decisions taken by the delivery system, and the data required to inform those decisions. Once identified, the focus must shift to actions to improve the quality of the data used by the delivery system.

Applying this research to the results of the Apte *et al.* study provides a useful picture for practitioners designing contextually similar delivery systems. Such claims have the important 'evaluation' step, as discussed above, which produces the output requested by the customer. More importantly, both also have the early activity of collecting relevant data from the claimant. This research, combined with the Apte *et al.* recommendation of improving the quality of the data utilised by the crucial 'evaluate' step, would provide benefit to practitioners designing such systems.

By utilising the recommendations of delivery system design provided here, these delivery systems would, ideally, utilise more 'fluid' design characteristics at the data collection stages. Benefits were identified with using higher skilled workers with higher levels of discretion at this early stage. These workers would assist the claimant in submitting only pertinent information, preventing unnecessary, undesirable, or irrelevant inputs from entering the delivery system, and reducing the consumption of resources required to review the

unnecessary documents. This attenuation action early in the process was seen to provide organisational benefit to both the 'justice/accuracy' provision, and the efficiency of the decision-making by reducing time spent reviewing inappropriate or unhelpful evidence.

Efficiency improvements through elimination of non-value-adding activity is clearly the domain of lean improvement methods. An extensive literature exists on lean methodology and lean applications, whereby waste is targeted for elimination. Of particular interest, are studies examining the use of lean improvements in contexts resembling information-centric MCPs.

Radnor & Boaden (2008) explored the use of 'Lean' in public services, concluding that benefits could be gained through cost reductions and improved delivery times. Hines (2008) and Seepma (2015) examined the benefits of using of 'Lean' in the judicial setting. Seepma (2015) specifically examined multi-organisational exchanges of case-related information required for decision-making. Hines (2008) focuses on delays in the flow of cases through the judicial system. The extant literature on Lean improvement in judicial context does not examine the quality improvements of case-related information, which was observed in this research to be the primary source of rework-related waste. In this way, this research contributes to the wider body of literature of performance improvements for information-centric organisations. This research provides empirical evidence that high volume, low contact, information-centric delivery systems can realise efficiency benefits through the use of fluid design characteristics at the stage of input reception from the customer. This approach uses the characteristics of fluid design as an attenuation activity, preventing inefficiency-creating customer inputs from impacting the important 'evaluate/decide' activity.

High volume legal professional services

In the review of the extant literature, a distinction was drawn between MCPs and high volume legal professional services. Lewis & Brown (2012) posited that due to low variability and faster throughput times, a significant opportunity for commoditization exists in the legal professional services. Their research identified the presence of standardised processes for some common and

frequently requested outputs; e.g. contracts, debt recovery, and will creation. The existence of standardised processes is a significant requirement for swift, even flow (Schmenner, 2004), a well-established characteristic for highly efficient, productive processes.

The findings of this research provide a response to the Lewis & Brown (2012) study, that the outputs of MCPs can benefit from the standardisation of most delivery processes. This study provides an important contribution to practitioners and academics that states how standardisation must be abandoned in the *evaluate/decide* activity step in order to deliver the customisation of 'justice' to the individual claimant. Efficiency in actions surrounding the decision provides organisational benefit, but must support the primary activity of providing the decision to claimant. The output decision must retain its effectiveness by providing high accuracy.

When contrasted against legal professional services, the finding of this research shows that a need for balance between efficiency and effectiveness remains a difficult task for both MCPs and legal professional services. The aim of this research is to provide empirical evidence to further inform this area of operational practice.

11.3 Limitations

The present study has several limitations that should be addressed. This research identified common phenomena and developed analytical frameworks for delivery system design in information centric operations. In particular, the study focused on the delivery of Mass Claims Processes. The research focused on two case studies of recent mass claims processes that provided a useful research perspective based on their varied abilities to reach optimal performance and deliver against organisational objectives.

A common limitation of case study research is the number of cases from which generalised observations are made. Challenges from a statistical point of view might seek to limit the generalisable nature of the findings; certainly a higher number of cases would increase the statistical reliability associated with sample size. However, a mixed method approach combined with cross-case analysis

and the use of replication logic were used in order to increase the methodological quality of the observations and generalisability of the findings (Eisenhardt, 1989; Yin, 2003). Proponents of case-based research place emphasis on ensuring rigour in this way in order to increase the level of acceptance for the findings.

The scope of this research addressed delivery system design in information centric mass claims processes, and the case studies focused solely on that sector. The findings are presented with the possibility, but not the promise of generalisability. The findings may indeed have a wider applicability to information centric organisations, but that applicability is subject to the testing of future research projects.

This research drew extensively on data and analysis from the first case study, the SPS. This is recognised as a limitation, in that the second case was not explored as deeply or extensively. This approach can also be seen as advantageous. The findings from the first case were confirmed through extensive internal validation, through the use of mixed methods and internal cross-case analysis. As a result of this methodological rigour in confirmation of the first set of findings, there was a high degree of confidence when approaching the second case. This allowed the research effort on the second case to be much more efficient in collecting data on those focal constructs; the extensive exploration was not necessary in order to seek out the relevant phenomena.

The precision of the observations on each of the design characteristics limit nuanced understanding of each characteristic and therefore the application of the recommendations to future design. Each was measured using a 'high-medium-low' scale, when more sensitive measurement would have been more revealing, thus allowing a clearer separation between the various measurements. This approach would be suggested in future research to extend understanding of this area.

11.4 Areas for further research

This thesis presents several concepts, primarily cascading interrelation, the framework for delivery system design in this context, to a growing area of both practitioner need and an area of growing research intensity. This section will present areas where further related research was identified.

Legal processes

The concept of efficiency in legal processes has gained significant attention of late. Well known and globally impactful organisations such as the United Nations (UN) and the International Criminal Courts (ICC) have undertaken review programmes to better understand the diversity of dynamics affecting the delivery of very large scale legal processes. The ICC itself has commissioned a review which identifies the need to understand and begin to apply efficiency improvements within its normal operating routine (Groome *et al.*, 2014; Jones, 2016).

This raises questions which can only be addressed through interdisciplinary research, bringing together researchers from Law as well as from the discipline of Management. The few existing contributions, while helpful, all highlight the need for further research. This thesis adopts an operations management focus, which relies on the ‘input-transformation-output’ model as a framework for analysis. Further insight would be gained through research which expands this perspective to include the entities which shape the overall organisation. This would move the analytical boundaries wider than the organisation to include the various influences provided by stakeholder organisations (funding bodies, political systems, etc.). Such a perspective, perhaps studied through a behavioural lens, would provide insight into how mandates are created, and what factors influenced their final incarnation. This would, in turn, affect the alignment between the mandate, which determines the service concept, and the delivery system.

If scaled down from a very large legal process to a smaller scale legal process, it is very easy to see how further research could be conducted on the provision of justice in a courtroom setting; local and regional courts. Applying the findings

of this research to a different contextual setting would provide further test the mid-range theory offered here; offering benefits to practitioners while expanding the foundations of research in this domain.

Information Centric Organisations

Information centric organisations comprise the one of the largest and fastest-growing contributions to global economic activity. While recent studies on the economic impact of information centric organisations are not available, the economic activity of a single such organisation was reported at over \$20 Billion (USD) in the first quarter of 2016 alone⁵. These types of organisations epitomise the characterisation of an information centric organisation as described in this research. Further research into the application of the design considerations in large-scale organisations that transform information, as proposed in this research, has clear applications for both practitioners and academics alike. Calls for research activity aligned with practice on topics such as big data analytics, internet of things, and blockchain technologies have all been made since 2010; this thesis provides foundational research which applies to these topics, in that each depends upon the transformation of customer provided information into information-centric outputs.

Postponement

The positions on Postponement produced from this research appear to have resonance with the concept of buyer-supplier duality in service supply chains (Sampson, 2000) where the customer is both the supplier of inputs and the receiver of final outputs. The Bucklin (1965) position on postponement states that the moment of customisation requested by the customer is most efficient when moved to the point in the process closest to the customer. Through the adoption of Sampson's observations, the point closest to the customer can exist at either the start or the finish of the transformational activity. In the cases

⁵ From Google's (Alphabet) 10-Q form, Official filings with the United States Securities & Exchange Commission, Q1-2016. (web: <https://abc.xyz/investor/>, accessed 05 July 2016.)

observed for this research, efficiency benefits were gained when the point of customisation occurred earlier in the transformational process.

If contrasted against the findings of this thesis, further research into the application of postponement strategies to early points of customisation in delivery systems where the customer is the supplier of the primary inputs would complement the extant literature in postponement in this context. This would further build on postponement research from Yang *et al* (2010) and Sampson's (2000) work on buyer-supplier duality in supply chains.

Batch of One

This emerged as a significant phenomenon in the SPS case. While there are certainly interrelations in other organisations; for instance, material-centric organisations might face error due to poor quality constituent materials or poor quality workmanship, where all the related affected products will face rework to correct the error. Customer-centric operations may similarly face interrelation issues due to the effects of shared experiences (emotionally charged events), or (in the case of health) poor quality treatment or the effects of ingestion of any material by a large group; the spread of a contagion, etc.

However, there appears to be a unique behaviour in information-centric interrelation which allows for retrospective changes to create significant complication. This may be due to the epistemological properties of information as opposed to tangibles such as materials or the corporeal self. For such physical items, the properties of the item are objective. Whereas with information properties, the properties can be subject to interpretation, which is especially true in analytical situations like legal processes such as those explored in this research. The state of the information's properties can be changed *ex post*, which then affect the *ex ante* state of that information. This is not possible with objective properties; the previously existing properties of materials used in a transformational activity are not fundamentally changed by an observation or opinion rendered after that activity. This appears to require more attention and understanding from researchers, given the increase in economic activity in information-centric operations in contemporary society.

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A. Appendix A - Checklist for Transnational Mass Claims Processes (TMCP)

From: Carrillo, A. J. & Palmer, J. S. (2010) Transnational Mass Claim Processes (TMCPs) in International Law and Practice. Berkeley Journal of International Law, 28, 2, 343-430.

Transnational mass claim processes are those that take place in the international or domestic context to resolve claims by persons acting individually or collectively, usually against a state, where such claims are brought for serious personal harm or property loss resulting from armed conflict, political repression and/or social upheaval.

Constituting Method and Instrument(s): Refers to the process and to the constituent instrument(s) by which a TMCP is created. Includes reference to political context and related formative events.

- Who are the parties creating the TMCP? E.g., states, IGOs, domestic authorities (executive, legislative, judicial), etc.
- What are the relevant political circumstances, domestic and/or international?
- What are the enabling normative sources or instruments? E.g., treaties, agreements, judicial decisions, legislation, executive decrees, etc.
- What are the stated goals of the TMCP?
- To what extent do the constituting instruments detail the norms, rules and procedures to be applied by the TMCP?
- What is the role in the constituting process of the international community?
- What is the role of the potential beneficiaries/claimants in the constituting process?

Legal and Procedural Norms I: Refers to jurisdiction as well as legal nature of proceedings and decisions.

- What is the nature of the claims process created? E.g., arbitration, administrative proceedings, etc.
- What is the range of claims covered by the TMCP?
- Who is entitled to remedies pursuant to these claims?
- Who is entitled to bring a claim?
- What substantive law applies, if any?
- How are the procedural rules defined and administered?
- How is fairness guaranteed?
- Are decisions final and binding? What is their legal authority?
- Can decisions be enforced?

- What is the effect on claimants' legal rights to recourse in other jurisdictions, domestic or international?

Legal and Procedural Norms II: Refers to the claims process, including the participants and procedures involved.

- How are potential claimants identified and informed of the process?
- What is the process for screening claims to ensure only those meeting prima facie criteria are processed?
- Is there a timetable for implementing the TMCP's mandate, including deadlines and a wind-up date?
- Who makes decisions on claims?
- How were these decision makers selected?
- What rules apply to the submission of evidence by claimants?
- What rules apply to burdens and standards of proof?
- Are provisions made for oral hearings?
- What mass claim techniques, if any, are employed?
- What provisions exist to support claimants who may not have the resources to access the TMCP?

Remedies and Reparations

- What types of loss or harm can be addressed?
- What types of individual remedies or reparations are offered to claimants?
- Restitution?
- Compensation?
- Non-monetary benefits or services?
- What types of collective remedies or reparations are offered to claimants?
- How are the rules governing compensation defined?
- How are the amounts of individual compensation fixed?
- How is compensation distributed?
- Is compensation subject to a maximum aggregate amount or other limitations?
- What non-pecuniary remedies or reparations (NPRs) are available?
- How are NPRs realized or distributed?

Operational Funding

- What types of expenses are required to set up and operate the TMCP? E.g., staff salaries, other official fees and expenses, infrastructure costs, IT, etc
- How are these operational costs funded?
- How are the available remedies and reparations, especially compensation, funded?
- Is the TMCP sustainable, that is, secured enough in terms of resources to carry out its mandate in substantial part?

Transparency and Accountability

- Does the TMCP have a communications strategy? If so, who is responsible for it?
- What type of outreach, if any, does the TMCP engage in? E.g., to potential claimants, government institutions and authorities, the general public.
- What mechanisms exist to provide information to the public on the TMCPs activities? E.g., webpage, mass media announcements, etc.
- Does the TMCP engage in regular or periodic reporting on its activities? If so, what form does it take?
- What types of information are made available to the public? E.g., information on legal norms and procedures, rules, decisions and awards, number of claims, etc.

B. Appendix B – SPS Interactions between sites

Description of the interactions:

For all sites:

- Entitlement Corrections (EC) and Overpayments (OP) are done on-site;
 - there is an EC and an OP on each site;
 - work is handed-off within the site (for instance from a standard WCW to a OP specialist);
 - EC affect OP significantly (e.g. an OP is often the result of an EC...if WCW realises the entitlement is wrong then there is a strong likelihood that the customer was over- or under-paid based on the wrong entitlement in the past).
- OP teams do 2 things: they process OP tasks from SBI owned by the site they are based on (intra-site hand-offs; OP does not own the SBI; OP resolves the task and closes it) AND process standard claims for the SBIs they own (same thing as standard WCW).

Northallerton (NA):

- Standard WCW: process standard claims;
 - possible hand-offs to Overpayments (OP) and Entitlement Transfers (ET) within the NA site;
 - possible hand-offs to Cross Compliance team (XC) in Carlisle;
 - possible hand-offs to RLR in Reading;
 - possible hand-offs to CReg in Newcastle;
 - possible that they have to talk to a customer whose call is transferred by the Customer Service Centre in Workington.
- Commons WCW Team: process claims that have commons land;
 - possible hand-offs to Overpayments (OP) and Entitlement Corrections (EC) within the NA site;
 - possible hand-offs to Cross Compliance team (XC) in Carlisle;
 - possible hand-offs to RLR in Reading.
- Cross Border WCW Team: process claims that have cross-border land;
 - no hand-offs to EC , OP, or ET as they do it themselves.

Exeter:

- Standard WCW: process standard claims;

- possible hand-offs to Overpayments (OP) and Entitlement Transfers (ET) within the NA site;
- possible hand-offs to Cross Compliance team (XC) in Carlisle;
- possible hand-offs to RLR in Reading;
- possible hand-offs to CReg in Newcastle;
- possible that they have to talk to a customer whose call is transferred by the Customer Service Centre in Workington.
- Commons WCW Team: process claims that have commons land;
 - possible hand-offs to Overpayments (OP) and Entitlement Corrections (EC) within the Exeter site;
 - possible hand-offs to Cross Compliance team (XC) in Carlisle;
 - possible hand-offs to RLR in Reading.
- Remote Sensing: process claims that have been selected for satellite-based inspection;
 - possible hand-offs to Overpayments (OP) and Entitlement Corrections (EC) within the Exeter site (to be verified);
 - possible hand-offs to Cross Compliance team (XC) in Carlisle;
 - possible hand-offs to RLR in Reading.

Workington:

- Customer Services Centre: handle all incoming calls;
 - may have to transfer calls to the WCW responsible for the SBI of the customer who calls; thus calls may be transferred to any of the teams (both specialists and standard WCW) across the 6 sites.

Reading:

- Finance: hand-off (or trigger) work to be done in OP; make payments for all of the claims processed in the scheme year.
- RLR: they don't process claims and don't own SBIs; work on behalf on all of the teams (both specialists and standard WCW);
 - work is handed-off to them.
- Inspectorate (CIMLT): they don't process claims; they are in charge of preparing dossiers for the inspectors (LIMT – 9 sites across the UK);
 - LIMT do the inspections and send the results to the team in Carlisle.

Newcastle:

- DMU: receives all incoming correspondence (both claims and customer letters);

- scan customer letters and allocate to the appropriate WCW by raising a Document Response Task (e.g. the scanned document is sent to the mailbox of the WCW);
- scan and extract data off claims;
- send forms to the customer (for instance, CReg forms that have been requested by the customer through the CSC).
- Entitlement Transfers: don't process claims; work is handed off to them primarily by EC teams across the 6 sites;
 - also process ET forms received from the customer (via DMU).
- CReg: deals with customer data issues; deal with all customers regardless of which WCW owns the SBI.

Carlisle:

- Cross compliance: they don't own the SBIs; process results of inspections for all SBIs that have been selected for cross-compliance inspections;
 - work SBIs that are owned by all of the 6 sites and by all of the teams
- Remote Sensing: process claims that have been selected for satellite-based inspection;
 - possible hand-offs to Overpayments (OP) and Entitlement Corrections (EC) within the NA site;
 - possible hand-offs to Cross Compliance team (XC) in Carlisle;
 - possible hand-offs to RLR in Reading.

Customer:

- Sends claims and correspondence to DMU.
- Phone enquiries are dealt with by the CSCearlier.

C. Appendix C – Protocol for data collection interviews

Research Area / Constructs	Operationalisation of the construct <ul style="list-style-type: none">• Questions
Process modelling and process description	Detailed process information required for process modelling: <ul style="list-style-type: none">• What are the key activities in each process?• What causes the process to start?• What inputs are supplied to the process?• What information is used?• Where does the information come from?• What people or teams are involved?• What information technologies are involved?• What constraints, or rules & regulations affect the way the process operates?• What does the process produce; what is the output?• For whom is the output produced?• Describe any issues or problems which may occur that might prevent the process from running smoothly.

Research Area / Constructs	<p>Operationalisation of the construct</p> <ul style="list-style-type: none"> • Questions
Identify 'Operate' processes which constitute the delivery system	<p>Development of a single model of the delivery system, from customer-initiation to claim closure.</p> <ul style="list-style-type: none"> • What are the processes involved in treating a claim? • What processes support the treatment process to make sure it performs as desired? • What processes provide guidance on how the treatment is performed? • Describe the activities through which a claim flows through the delivery system.
Customisation	<p>The ability for the designed process to be altered as a result of the inputs provided by the claimant.</p> <ul style="list-style-type: none"> • Is the flow from activity-to-activity the same for every claim? • How does the content of a claim change the way the claim is treated? Is the adjustment rigidly defined? Is there guidance for how any adjustment might take place?

Research Area / Constructs	<p>Operationalisation of the construct</p> <ul style="list-style-type: none"> • Questions
Customer contact	<p>The points in the claim treatment process where a claimant comes in contact with the delivery system.</p> <ul style="list-style-type: none"> • What inputs does the claimant provide for the activity? • Is it possible that an activity can be completed without any contact with the claimant? • Is contacting the claimant allowed? • When is it necessary to have an interaction with the claimant? • Has any training been offered on interacting with claimants? • Can a claimant contact workers?
Employee discretion	<p>The judgement that an employee can exercise in how the process of delivery might be adjusted for a claim or set of claims.</p> <ul style="list-style-type: none"> • Are there standard ways to solve problems? • To what extent are behaviour and process compliance controlled? • Is there a set of specific guidelines or rules provided to perform tasks? • How constrained are employees within the parameters of their jobs? • To what extent can employees develop their own way of accomplishing a task?

Research Area / Constructs	<p>Operationalisation of the construct</p> <ul style="list-style-type: none"> • Questions
Employee skill level	<p>Type and level of skills of employees in the delivery system.</p> <ul style="list-style-type: none"> • What employees perform what tasks? • What type of skill is required to do the job? (interpersonal, communication-based, technical, and/or analytical.) • What level of skill is required to do the job? (specific training, specialist education)
Location	<p>The physical location of the delivery system.</p> <ul style="list-style-type: none"> • Where does the work take place? • Are some parts of the process performed in different locations? • Why is the work performed in those places?
Automation	<p>The use of information technologies to execute or facilitate the process.</p> <ul style="list-style-type: none"> • What activities or tasks can be performed by workers without the aid of technologies? • What activities or tasks are performed entirely by the information technology? • What enables the process to be automated? • What prevents the automation in the process from functioning? • To what degree does the employee have to intervene in a process? • What is the degree of manual work in the process?

Research Area / Constructs	<p>Operationalisation of the construct</p> <ul style="list-style-type: none"> • Questions
Front-/Back-office configuration	<p>The coupling or de-coupling of customer contact activities and non-contact activities in the delivery system.</p> <ul style="list-style-type: none"> • What employees perform what activities? • Are customer-contact activities and non-customer-contact activities allocated to the same employees or to different employees? Why? • What is the purpose of this configuration? (What is that configuration hoping to achieve?) • Are employees grouped in separate or common groups? Do they share the same physical space?
Accuracy/Efficiency	<p>The influence on the way a task is performed to provide benefit for the organisation.</p> <ul style="list-style-type: none"> • How much time is allowed or expected to perform this task? • What measurements are placed on this activity? What is the aim of taking that measurement? • Is there clear direction provided on how to make decisions? • How tightly defined are the rules on the outputs of decision-making?

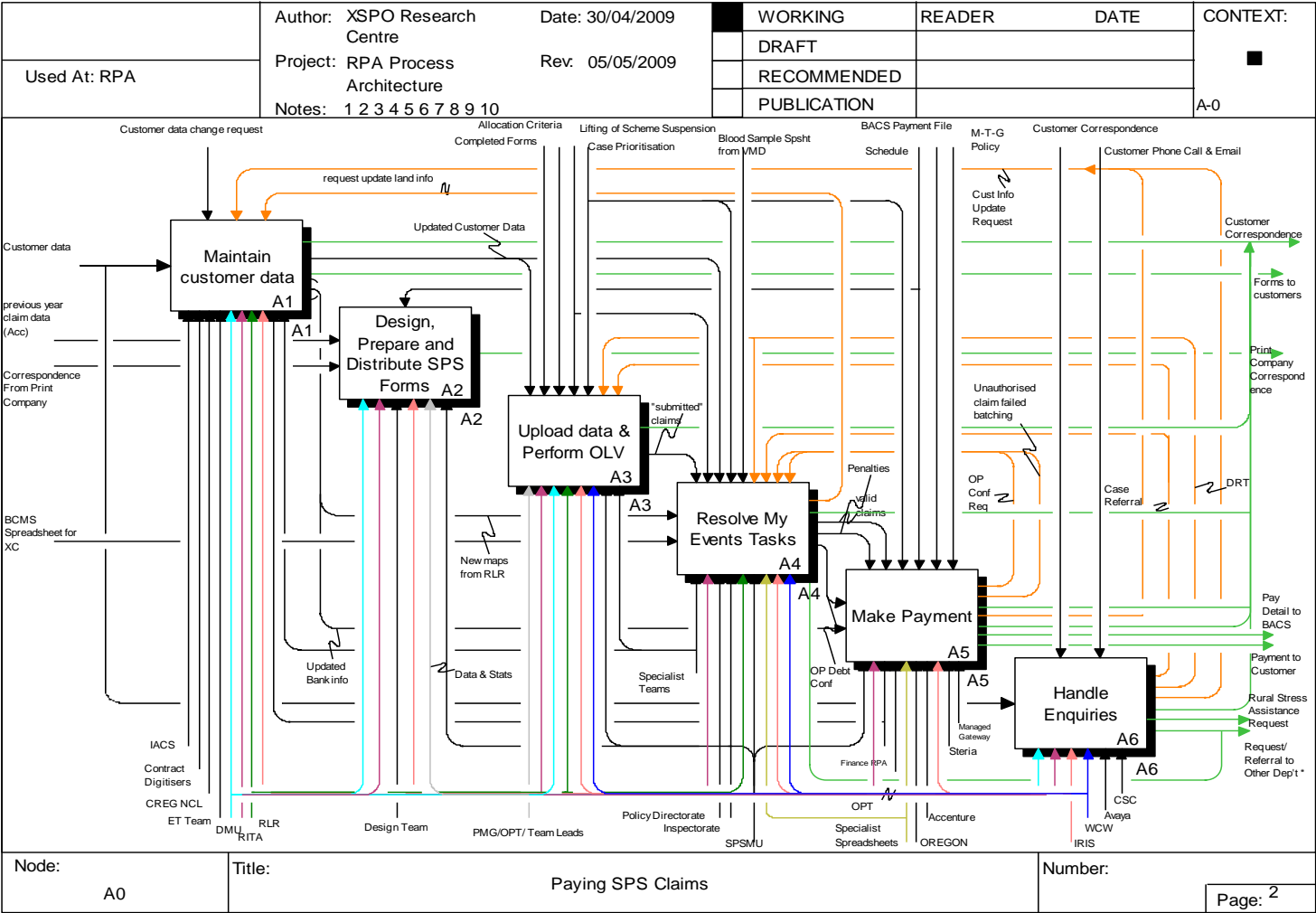
Research Area / Constructs	<p>Operationalisation of the construct</p> <ul style="list-style-type: none"> • Questions
Interrelation	<p>The connection between claims created when data used in decision-making impacts multiple claims.</p> <ul style="list-style-type: none"> • Is the data used by any other activities in the delivery system? • If data is adjusted, which other activities are impacted? • Do the decisions made on a claim have impact on any other claims? What is the impact? • Are interrelations identified and noted? Is any special action taken once noted?
Batching & Grouping	<p>Applying a single action to a group of similar claims.</p> <ul style="list-style-type: none"> • Are there any decisions made that apply to groups of claims? • Are there any actions taken that are applied to a large group of claims without investigating each individual claim. • How are new rules on claim treatment applied to claims?

Research Area / Constructs	<p>Operationalisation of the construct</p> <ul style="list-style-type: none"> • Questions
Postponement	<p>Delaying customisation efforts for a claim to the latest possible point in the flow through the delivery system.</p> <ul style="list-style-type: none"> • Is there any action taken that requires claimant-specific inputs? • Are the results of those actions unique to that claim? • Are there any actions taken that would affect the claim's valuation? • How do the characteristics of the claim affect the performance of the task?
Interdependency	<p>The requirement of outputs of tasks in order to undertake successive tasks.</p> <ul style="list-style-type: none"> • Can the activity be undertaken with the claimant-provided data? • Does this activity require the output from a previous activity to be completed? • Does this activity provide input for another activity that cannot start until this activity is complete? • Are there other activities that perform their work simultaneously? Do those activities use shared resources with other activities?

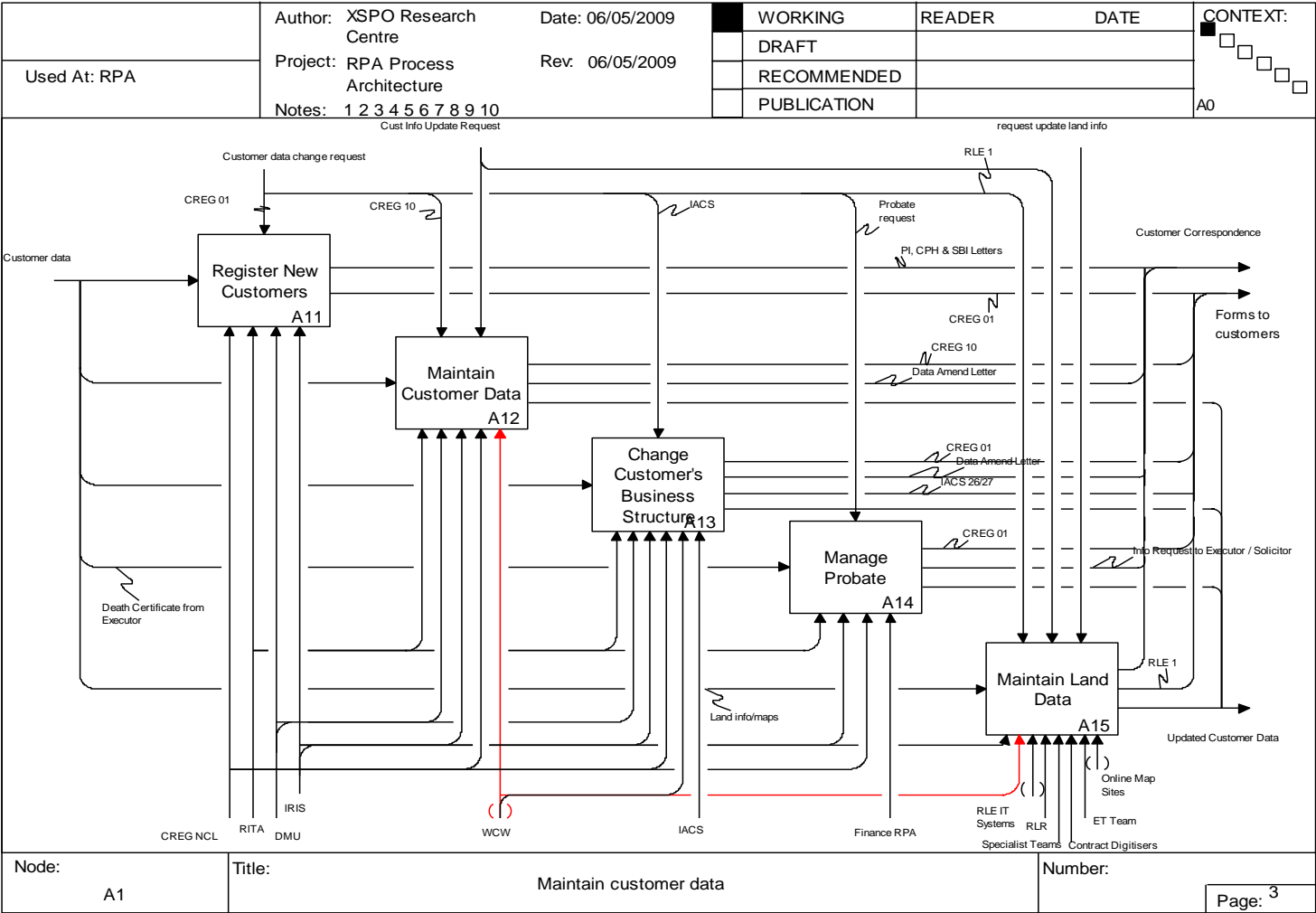
D. Appendix D – SPS Glossary of modelling terms

Avaya	IT system used in the call centre to manage incoming phone inquiries
BACS	Banker's Automated Clearing Services
BCMS	British Cattle Movement Scheme
CAR	Carlisle (RPA office location)
CREG	Customer Registration
CSC	Customer Services Centre (call centre)
DMU	Document Management Unit
DRT	Document Response Team
ET	Entitlement Transfer
EXE	Exeter (RPA office location)
IACS	Integrated Administration and Control System
IRIS	Integrated Rural Information System
NA	Northallerton (RPA office location)
NCL	Newcastle (RPA office location)
OCR	Optical Character Recognition
OP	Overpayments
OPT	Operations Team
OREGON	IT system which managed RPA finance workflow and data
PMG	Performance Management Group
RDG	Reading (RPA office location)
RITA	RPA Information Technology Application
RLR	Rural Land Register
RPA	Rural Payments Agency
SPSMU	Single Payment Scheme Management Unit
VMD	Veterinary Medicine Directorate
WCW	Whole Case Worker
WTON	Workington (RPA office location)
XC	Cross Compliance

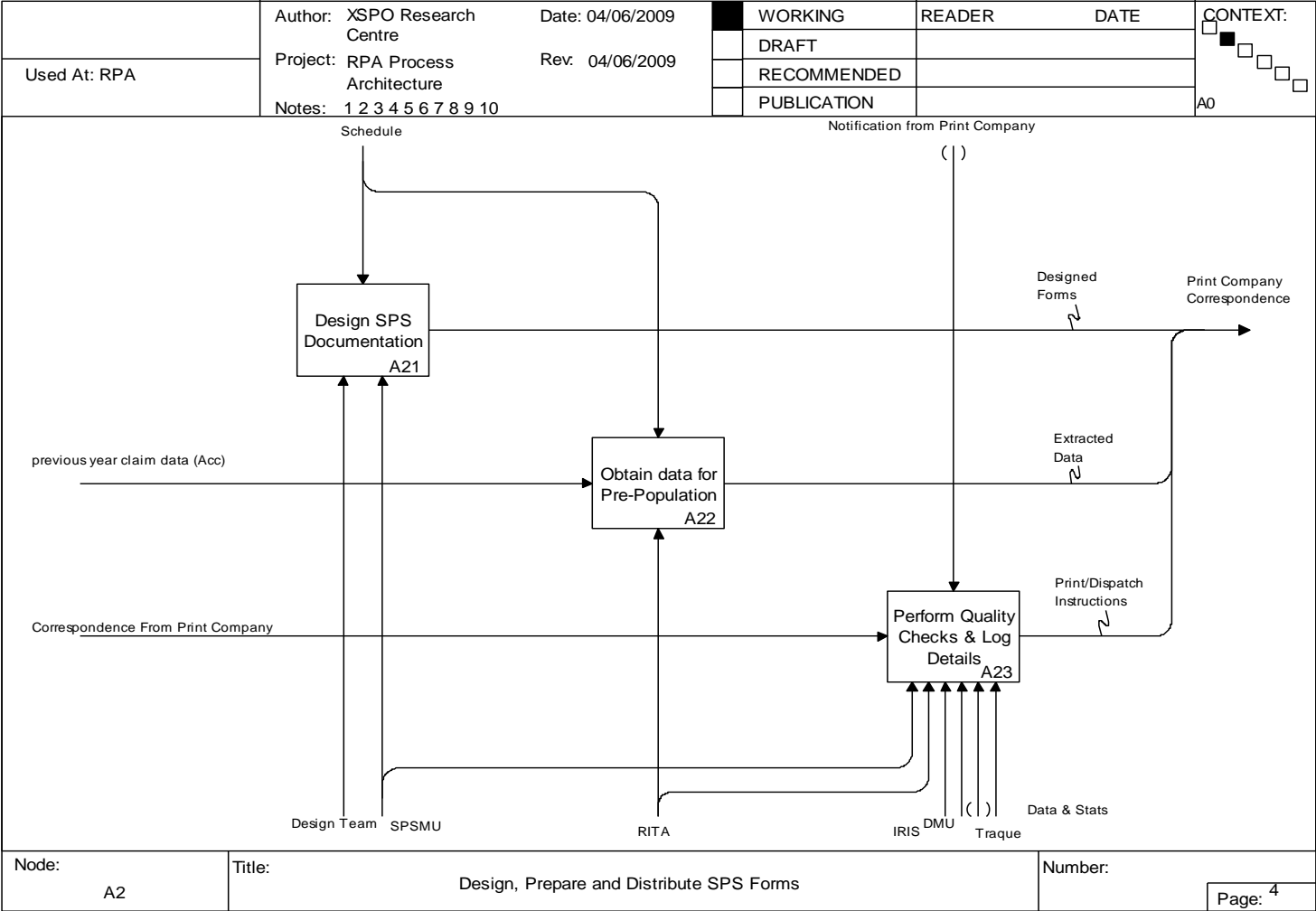
E. Appendix E – SPS Process Models



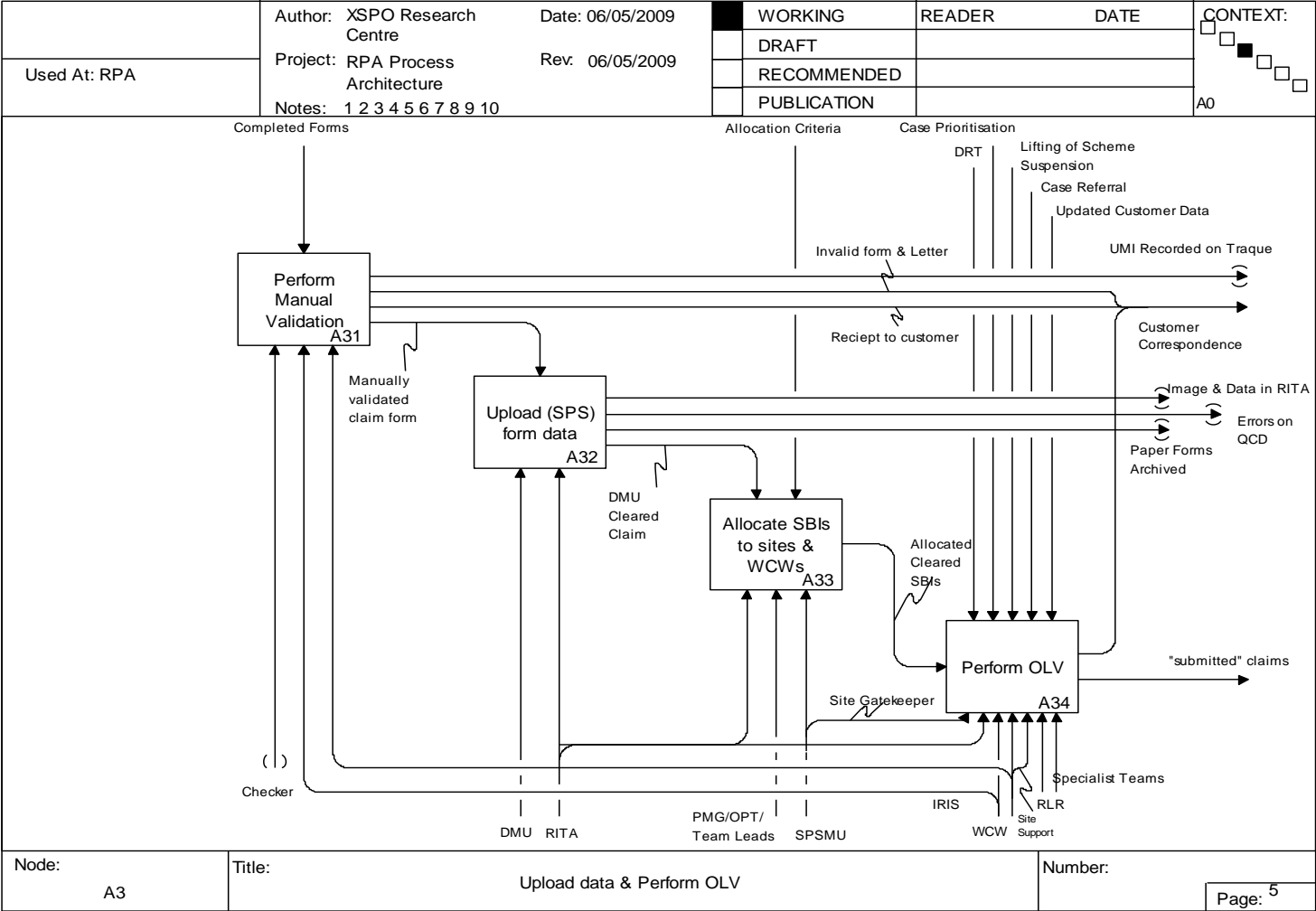
Appendix E – Process Architecture Maps (cont.)



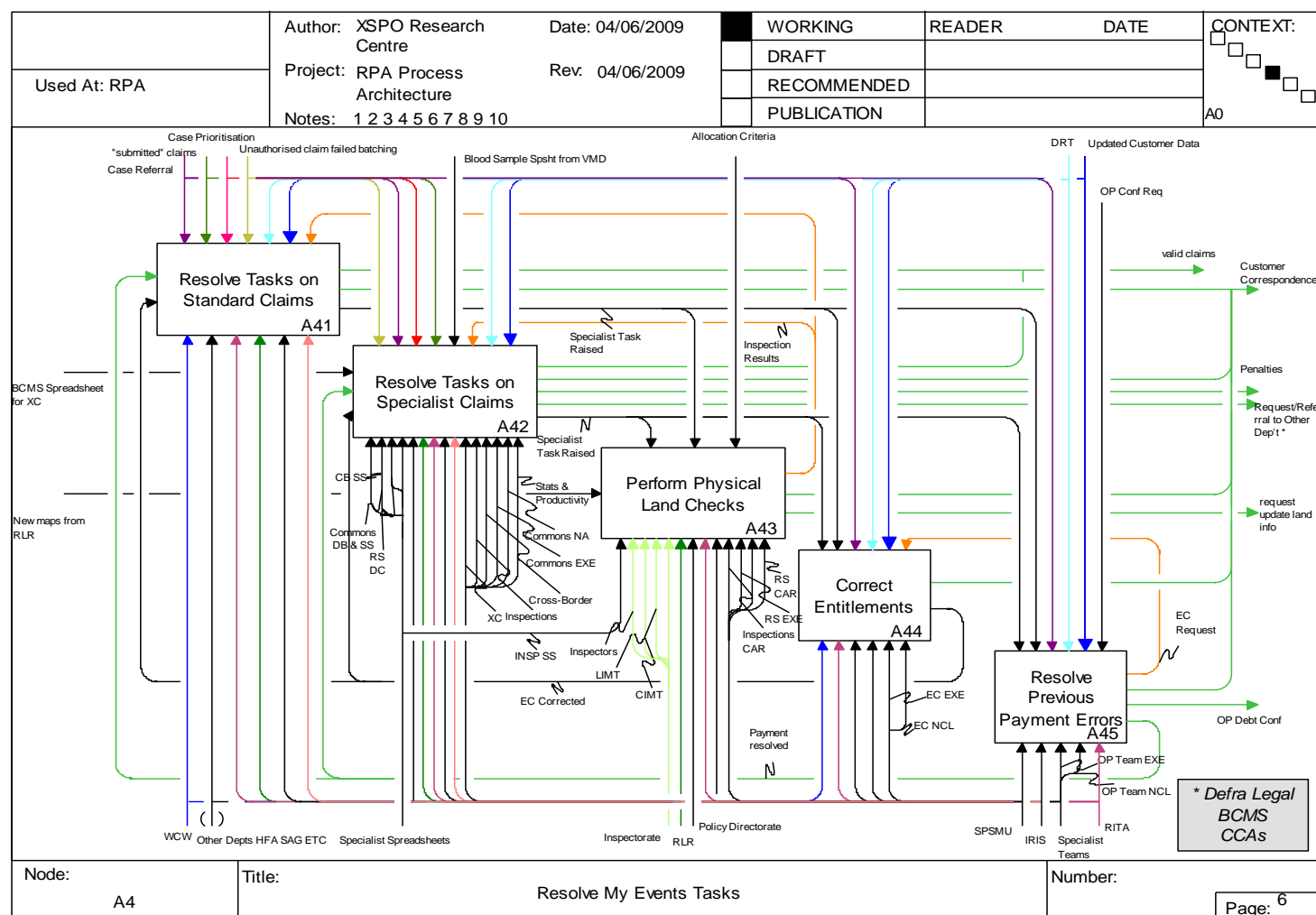
Appendix E – Process Architecture Maps (cont.)



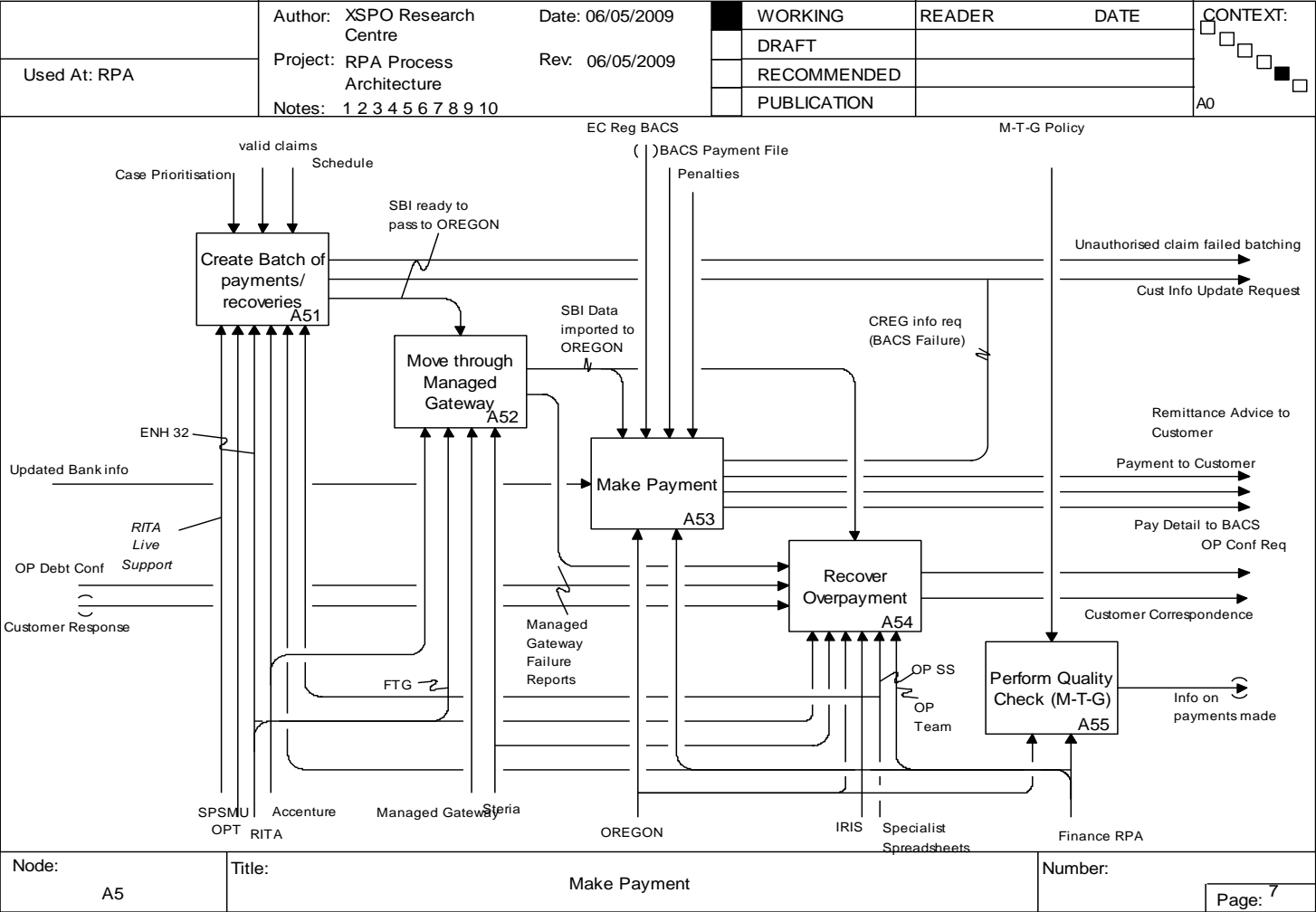
Appendix E – Process Architecture Maps (cont.)



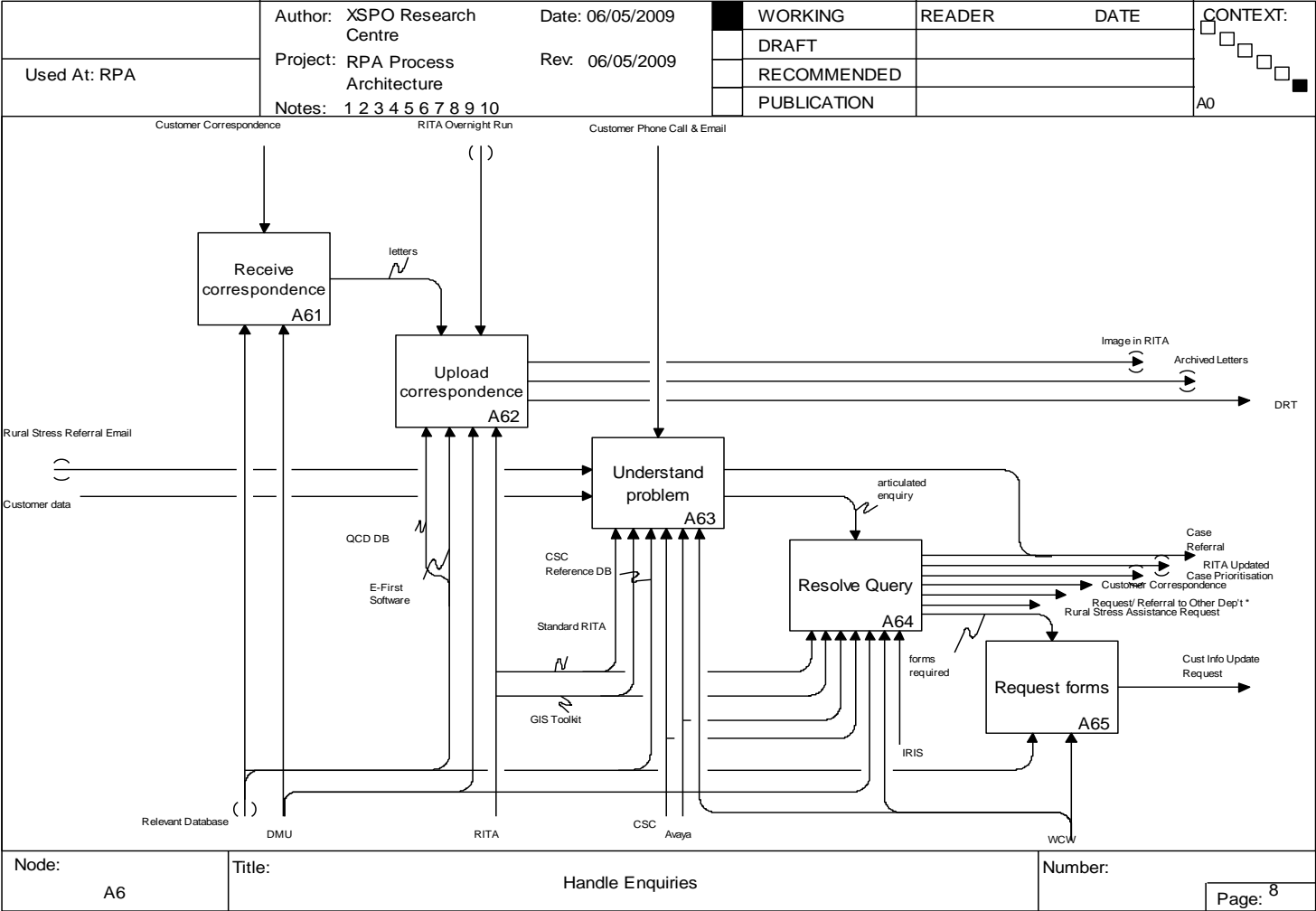
Appendix E – Process Architecture Maps (cont.)



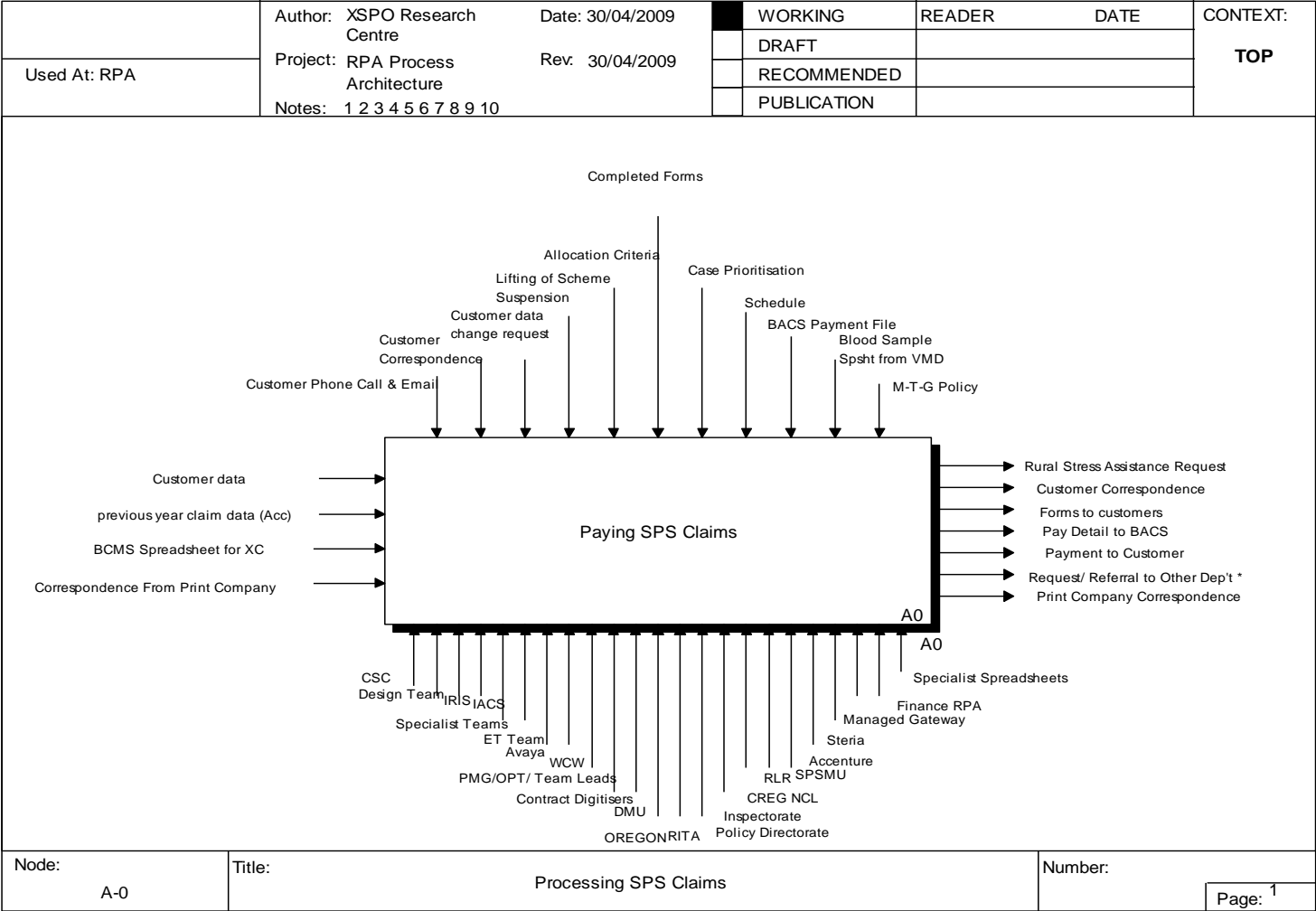
Appendix E – Process Architecture Maps (cont.)



Appendix E – Process Architecture Maps (cont.)




Appendix E – Process Architecture Maps (cont.)



F. Appendix F – SPS SP5 Claim Form Sample

Single Payment Scheme application – England 2009

Including Area Payment for Nuts, Aid for Energy Crops, Protein Crop Premium, and Hill Farm Allowance 2010 (HFA)



How to fill in this form

- Before starting, please read the guide 'How to fill in your Single Payment Scheme application'. You will also need 'The SPS handbook' and 'The Guide to Cross Compliance in England'.
- Please use black ink and CAPITAL LETTERS.
- Don't use pencil or felt tip pen.
- You must check all the green pre-printed information. If you are sure that it is all correct, just sign and date the form – you don't need to copy the information out. If you need to change anything, please write in the correct information in the box below the pre-printed text, or put a cross in the relevant box.
- Don't cross out whole pages or remove them.
- Don't fold the form.

If you make a mistake

- Don't use correction fluid.
- Cross through the error at least three times. For boxes with crosses, totally fill in the box.
- Write in the correct information as near to the answer space as possible, and add your initials and the date.
- Also read page 00 of the guide for more information on how to correct mistakes.

Before you send your form back, have you...

- filled in columns C7, C8 and D8, or checked that the preprinted information here is correct? If these columns are not filled in, we cannot pay you.
- signed the form? If you have not signed the form, we cannot pay you.

A Your business

This form is only for this business. If the SBI (Single Business Identifier) or Business name is wrong, please call 0845 603 7777.

A1 ▶ SBI (Single Business Identifier):	987654321
A2 ▶ Business name:	A N O T H E R

B Currency for your payment

B1 ▶ Which currency would you like to receive your payment in?

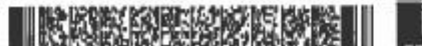
£ Sterling ☒ € Euros ☒


Office use only

Any queries? Call 0845 603 7777 • Email csc@rpa.gsi.gov.uk

F1 17 019
V1 17 000
P001

001 001 of ###





[illegible]

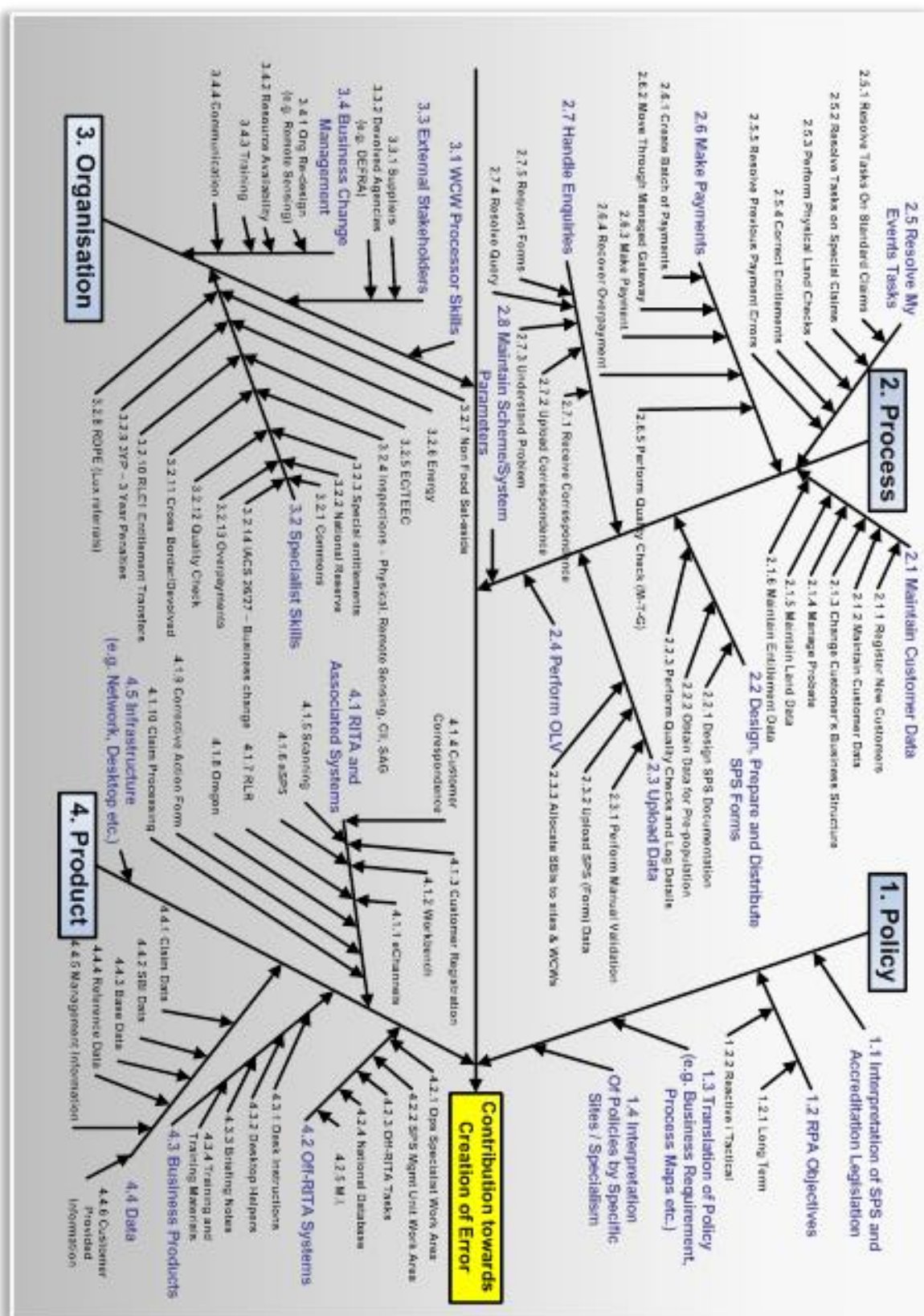
Before you fill in this page, see page 99 of 'The SPS Handbook'

If you don't have any common land grazing rights, please go to page 60. If you do, slide green pre-printed labels in their case fully.

PL 111-858
10-15-2010
FPOB

[illegible]

G. Appendix G – Expert Panel Review – Ishikawa Diagram



Arm 2-Process required further illustration for the benefit of the expert panel and WCWs.

2 Process – Error is based in the action of processing an SPS claim

2.1. Maintain Customer Data – error or delay caused when customer (SBI-based) data is not updated correctly or in a timely manner for use by other areas of the business.

2.1.1. Register New Customers – The registration of the customer is delayed, or contains errors, which affects downstream efforts.

2.1.2. Maintain Customer Data – Any changes with entitlements, names, bank accounts, addresses which cause delay or error in processing the claim.

2.1.3. Change Customer's Business Structure – Changes associated by adjustments to the registered business details which cause delay or error in processing the claim.

2.1.4. Manage Probate – An SBI involved in probate has caused delays or error in processing the claim.

2.1.5. Maintain Land Data – Changes regarding the size, location, entitlement, transfer of land, any of which cause delay or error in processing a claim.

2.2. Design, Prepare and Distribute SPS Forms

2.2.1. Design SPS Documentation – The design and creation of the SP5 and other forms, including any assistance documents (customer help documents). The forms or documents create delays or errors in processing claims.

2.2.2. Obtain Data for Pre-Population – Obtaining, printing, and distributing the pre-population data from the immediate past claim year to the customer causes delay or error in processing a claim

2.2.3. Perform Quality Checks and Log Details – The quality checks done with DMU to ensure print quality and data transfer accuracy.

2.3. Upload Data

2.3.1. Perform Manual Validation – The manual validation failed to correct an error it was designed to correct.

2.3.2. Upload SPS (form) Data – The form data was transferred incorrectly from the form into the IT systems (should be ticked in conjunction with 4.1.5. Scanning and possibly 4.4.1 Claim Data).

2.3.3. Allocate SBIs to Sites & WCW – The allocation of the SBI to the incorrect case worker or the wrong site caused delay or error in processing.

2.4. Perform OLV – Decisions made or actions taken during OLV were flawed, resulting in processing errors or delays.

2.5. Resolve MyEvents Tasks – Processor or System Error during the processing of claims; with the following characteristics.

2.5.1. Resolve Tasks on Standard Claims – The resolution of tasks, either by WCW or by System-closure, on non-specialist claims was flawed, resulting in error or delay.

2.5.2. Resolve Tasks on Specialist Claims – The resolution of tasks, either by WCW or by System-closure, on specialist claims was flawed, resulting in error or delay.

2.5.3. Perform Physical Land Checks – The process of performing an inspection (as soon as the claim leaves normal processing for inspection, to the time the claim comes back with inspection results) was flawed, creating error or delay.

2.5.4. Correct Entitlements – The process of Entitlement Correction resulted in error or delay. (This does not include those cases where normal 'successful' EC has occurred.)

2.5.5. Resolve Previous Payment Errors – The process of investigating and adjusting apparent errors in a previous payment/adjustment produces a flawed output, creating further error and/or delay.

2.6. Make Payments –

2.6.1. Create Batch of Payments – The inclusion of a claim payment to a batch fails, producing/revealing error or delay.

2.6.2. Move Through Managed Gateway – Proceeding through the Managed Gateway fails, producing/revealing error or delay.

2.6.3. Make Payment – The action of making a payment fails, revealing error and/or producing delay.

2.6.4. Recover Overpayment – Recovery produces flawed results, reveals processing errors, and/or delay.

2.6.5. Perform Quality Check (M-T-G) – This action should only reveal errors which have roots in other areas.

2.7. Handle Enquiries

2.7.1. Receive Correspondence – Correspondence is not received correctly, details fail to move from correspondence into system NOT because of upload error (processor error?)

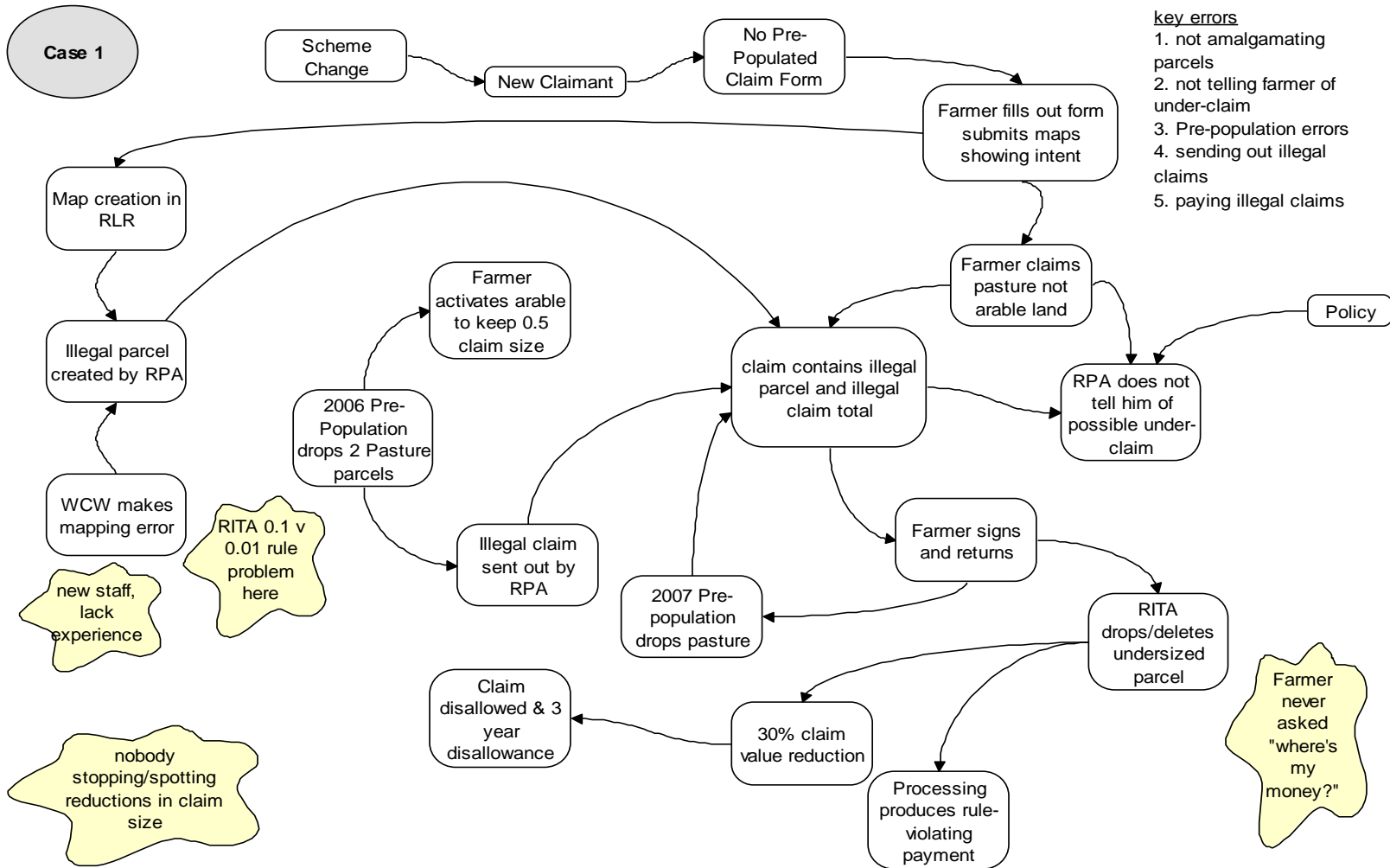
2.7.2. Upload Correspondence – The act of uploading correspondence into actionable areas for claim processing fails, producing the possibility of error and delay.

2.7.3. Understand Problem – (For use in cases where and RPA representative, who is not the SBI-owner, attempts to assist the customer) The staffer fails to understand the problem correctly and recommends action (by farmer or other RPA staff) which results in error or delay.

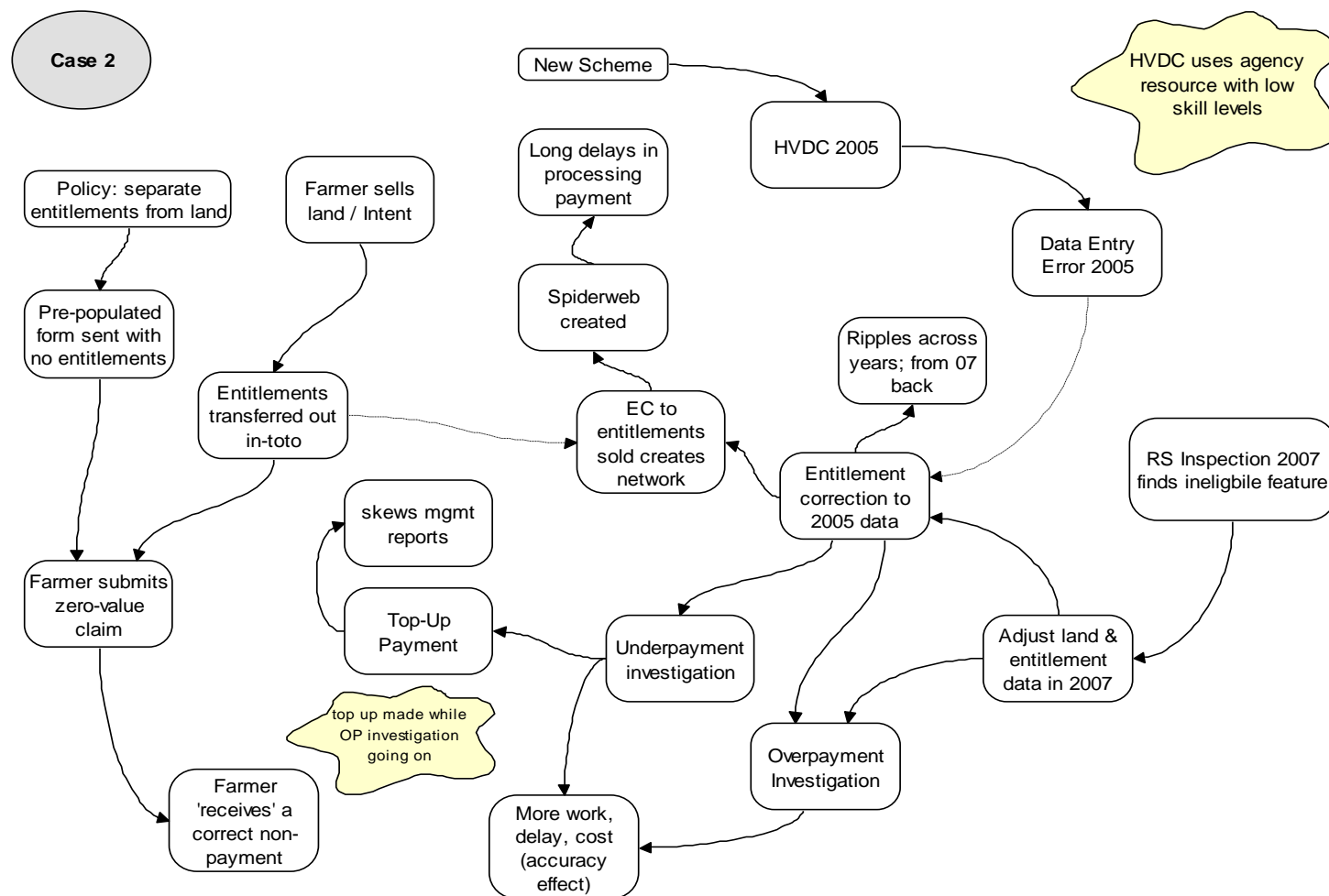
2.7.4. Resolve Query – The RPA staffer (who is not the SBI-owner) acts or recommends action, but fails to complete procedure to ensure detail is available to other staff (including SBI owner), resulting in error, rework, or delay.

2.7.5. Request Forms – All actions to assist the customer are logged, but the act of requesting proper form-work fails (either systemically or by human error; wrong forms delivered or forms are never delivered to the customer), resulting in error or delay.

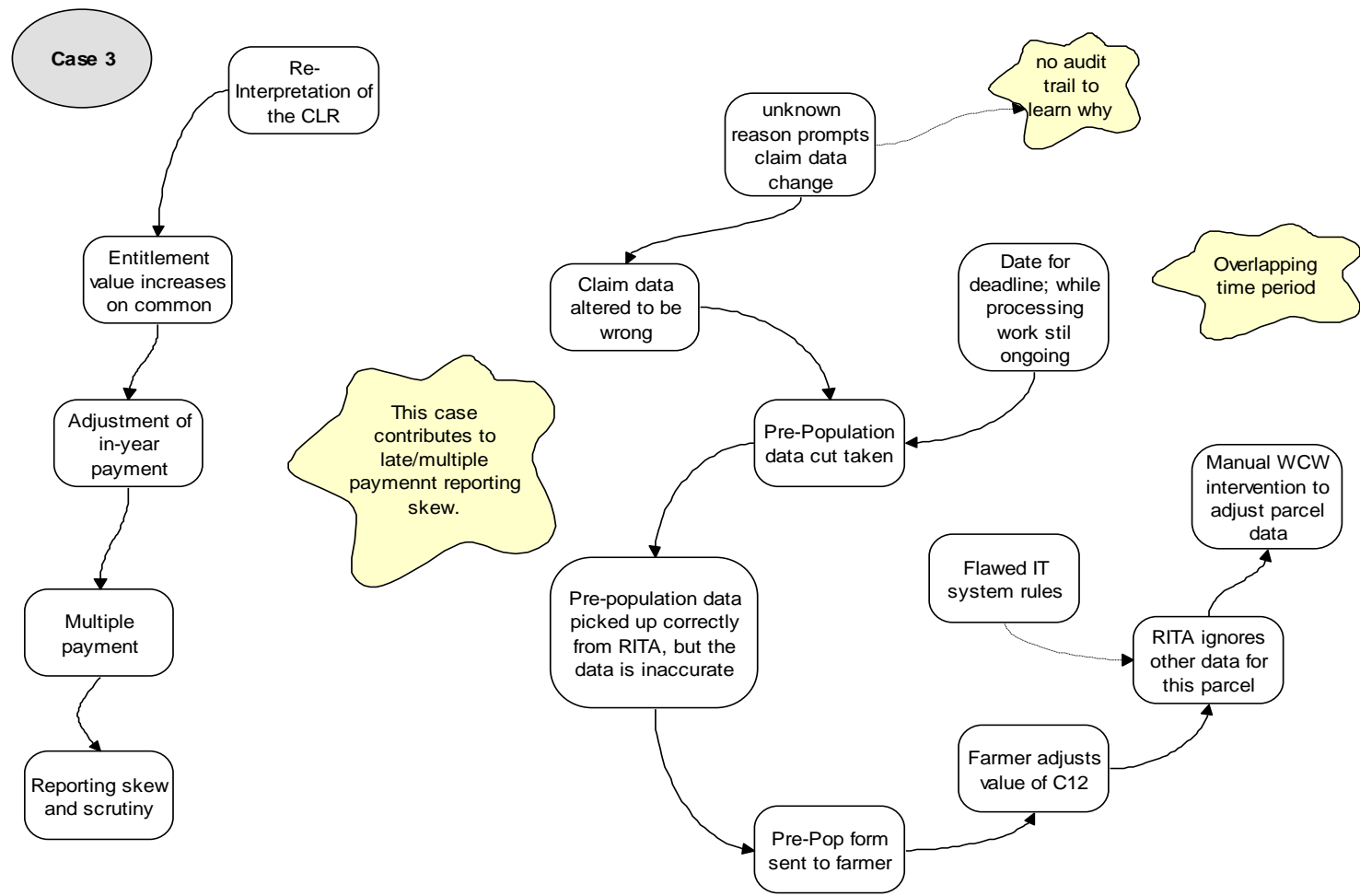
H. Appendix H – Case pictograms



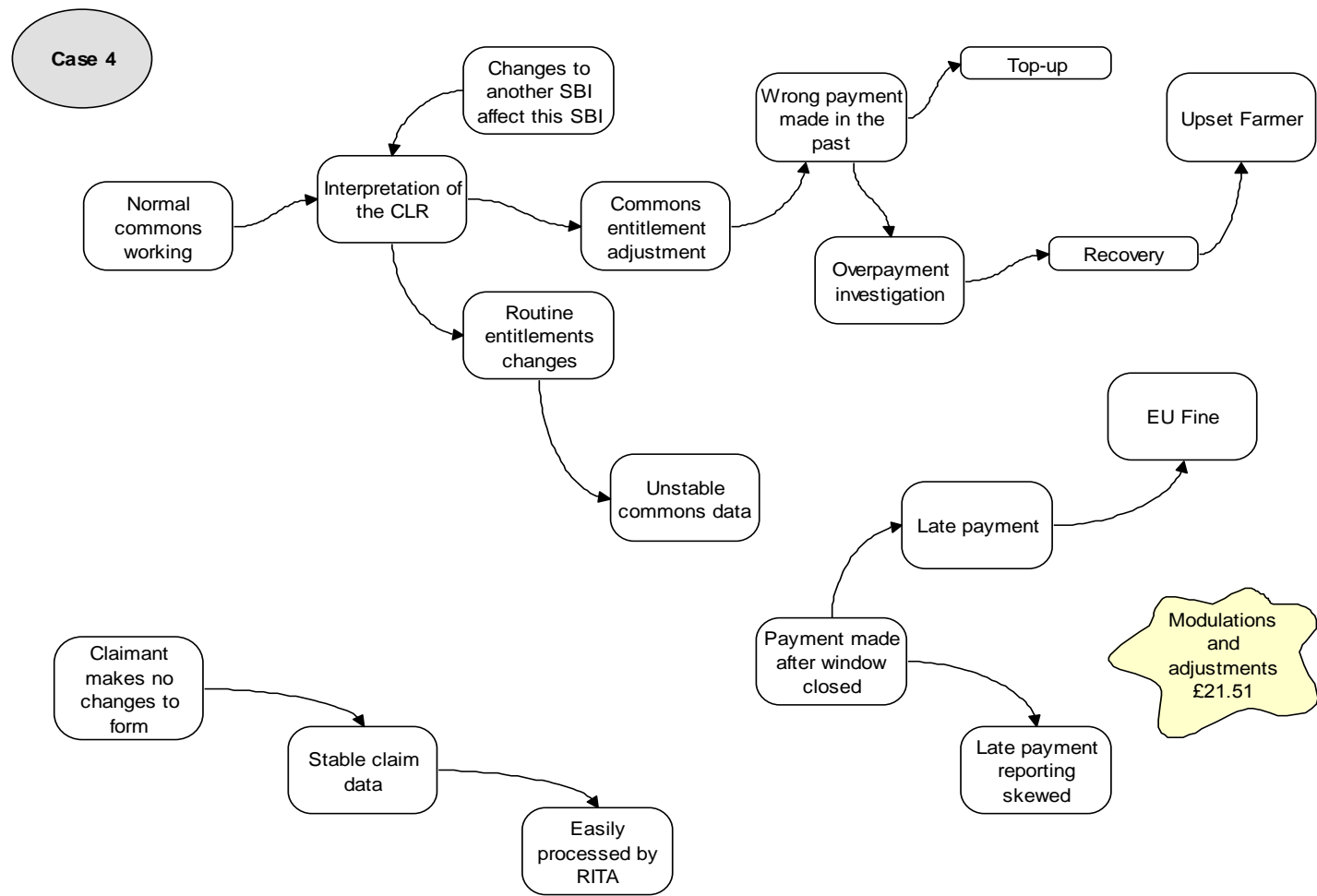
Appendix H – Case Pictograms (cont.)



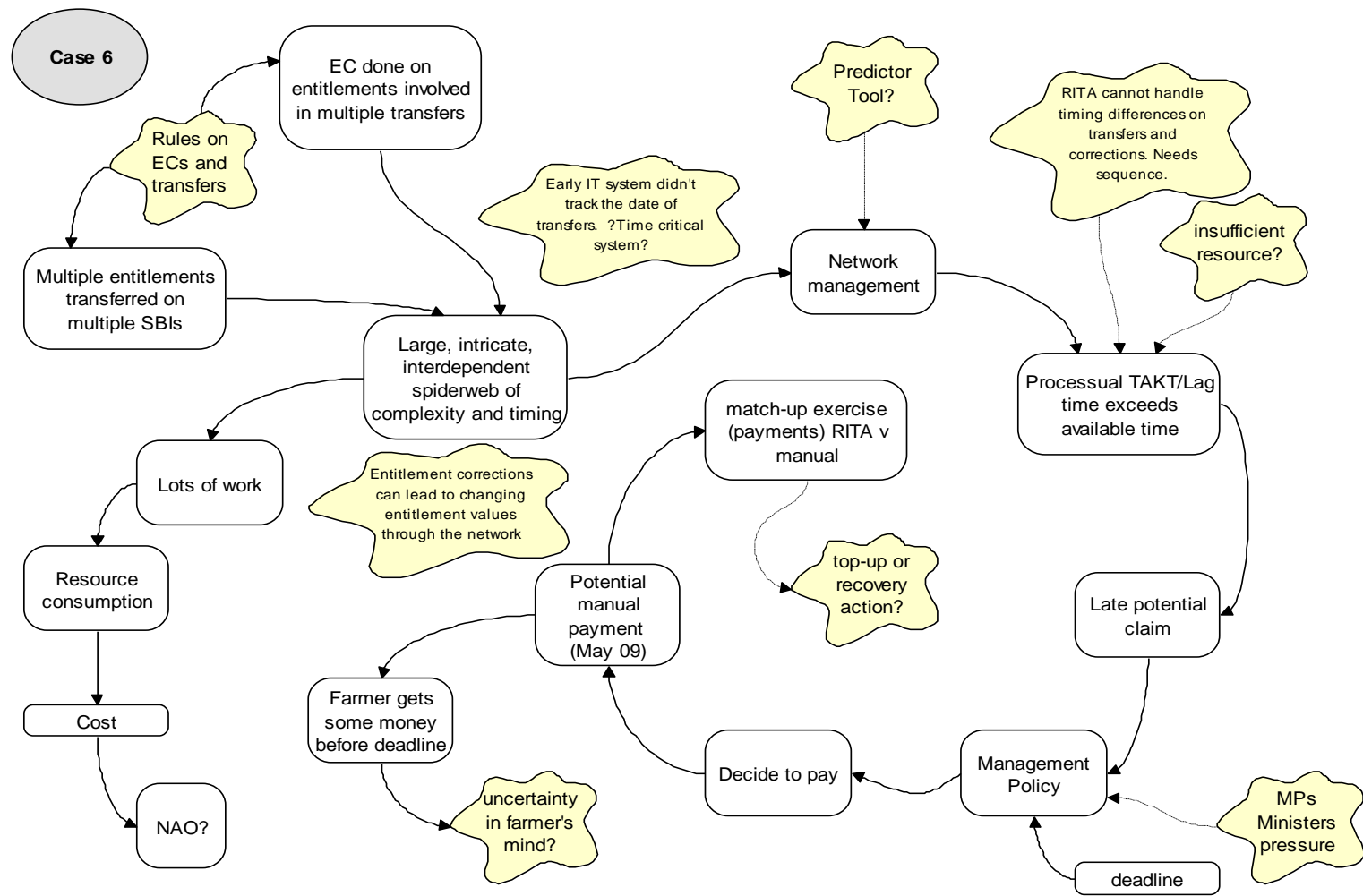
Appendix H – Case Pictograms (cont.)



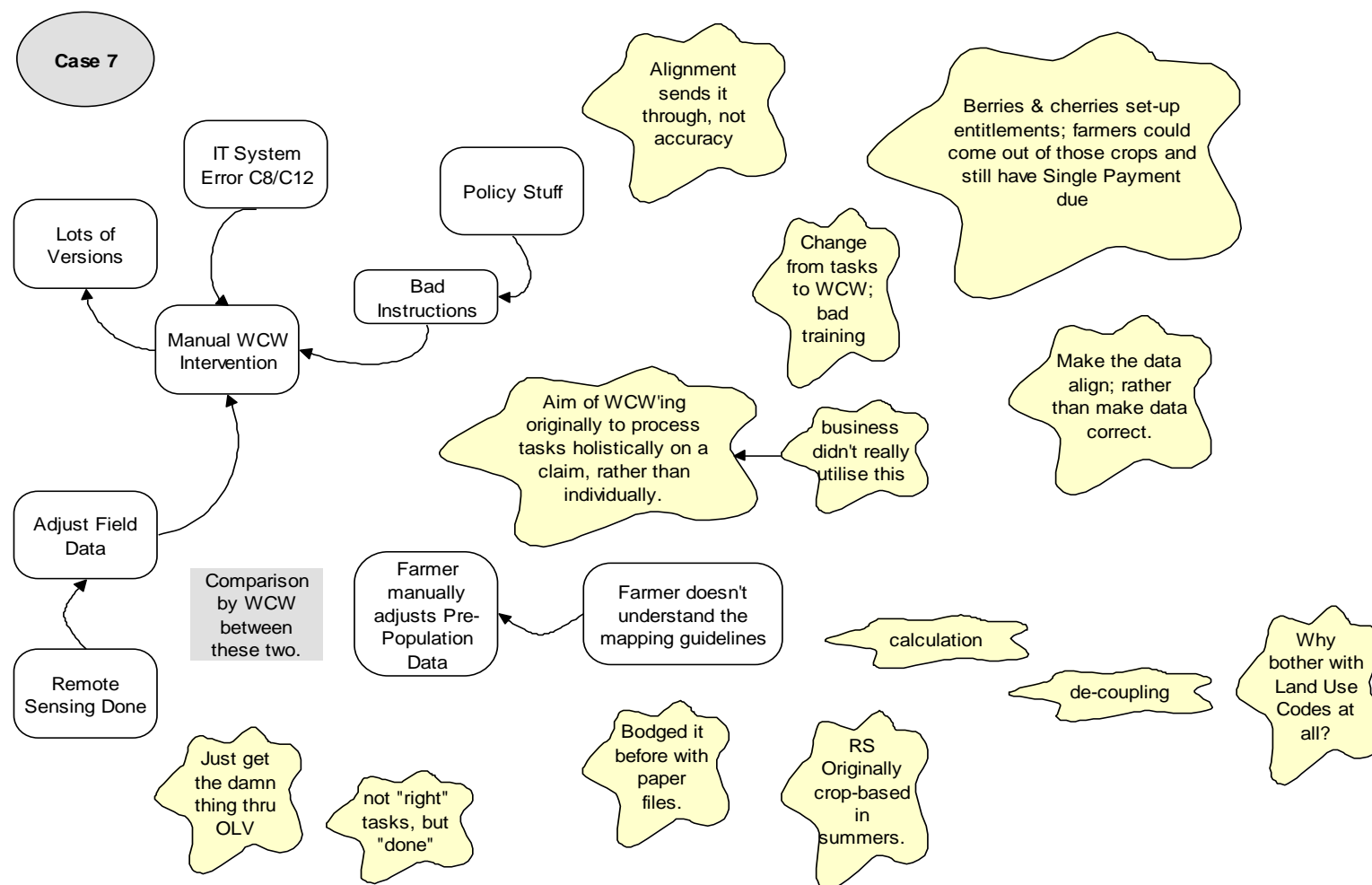
Appendix H – Case Pictograms (cont.)



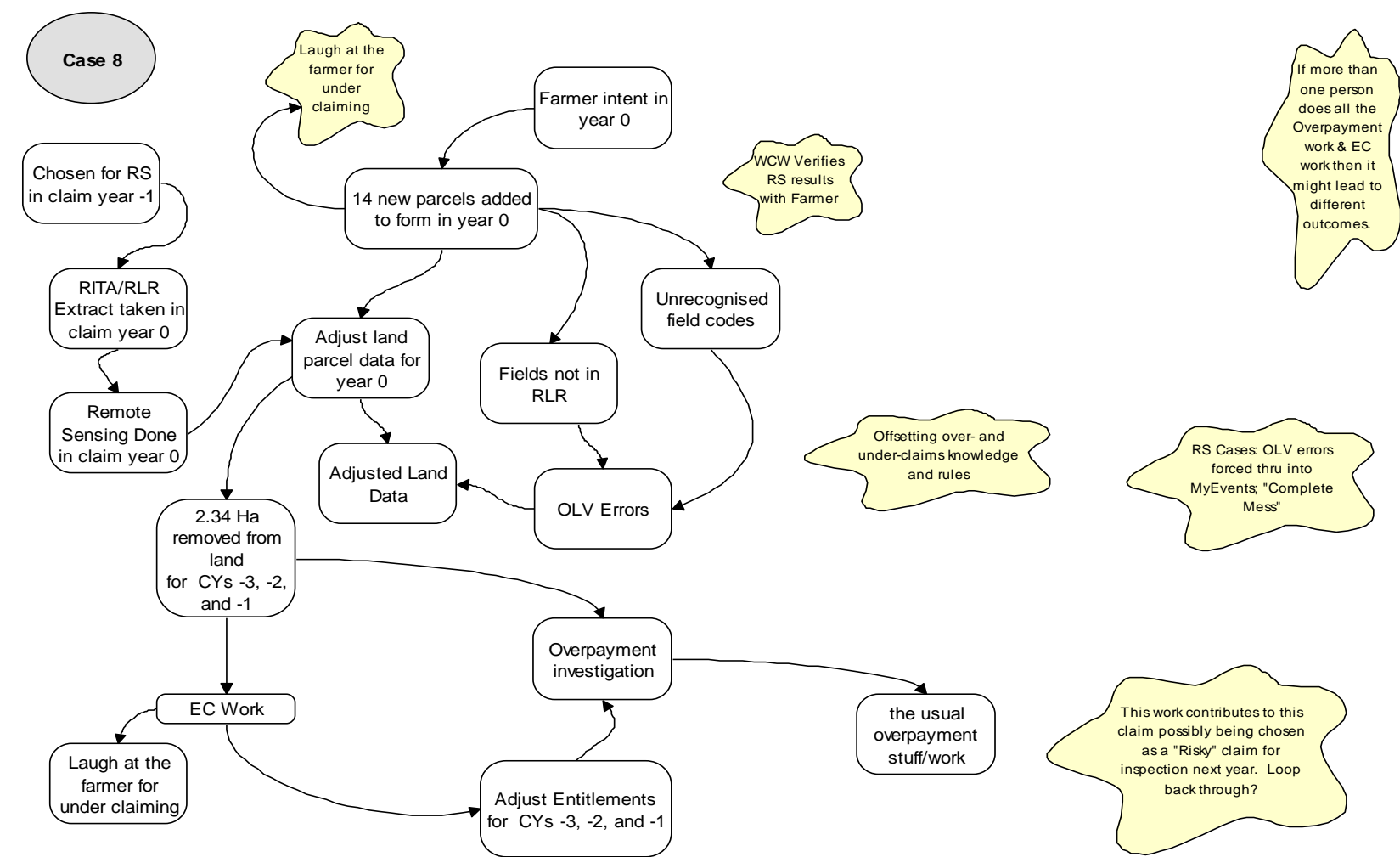
Appendix H – Case Pictograms (cont.)



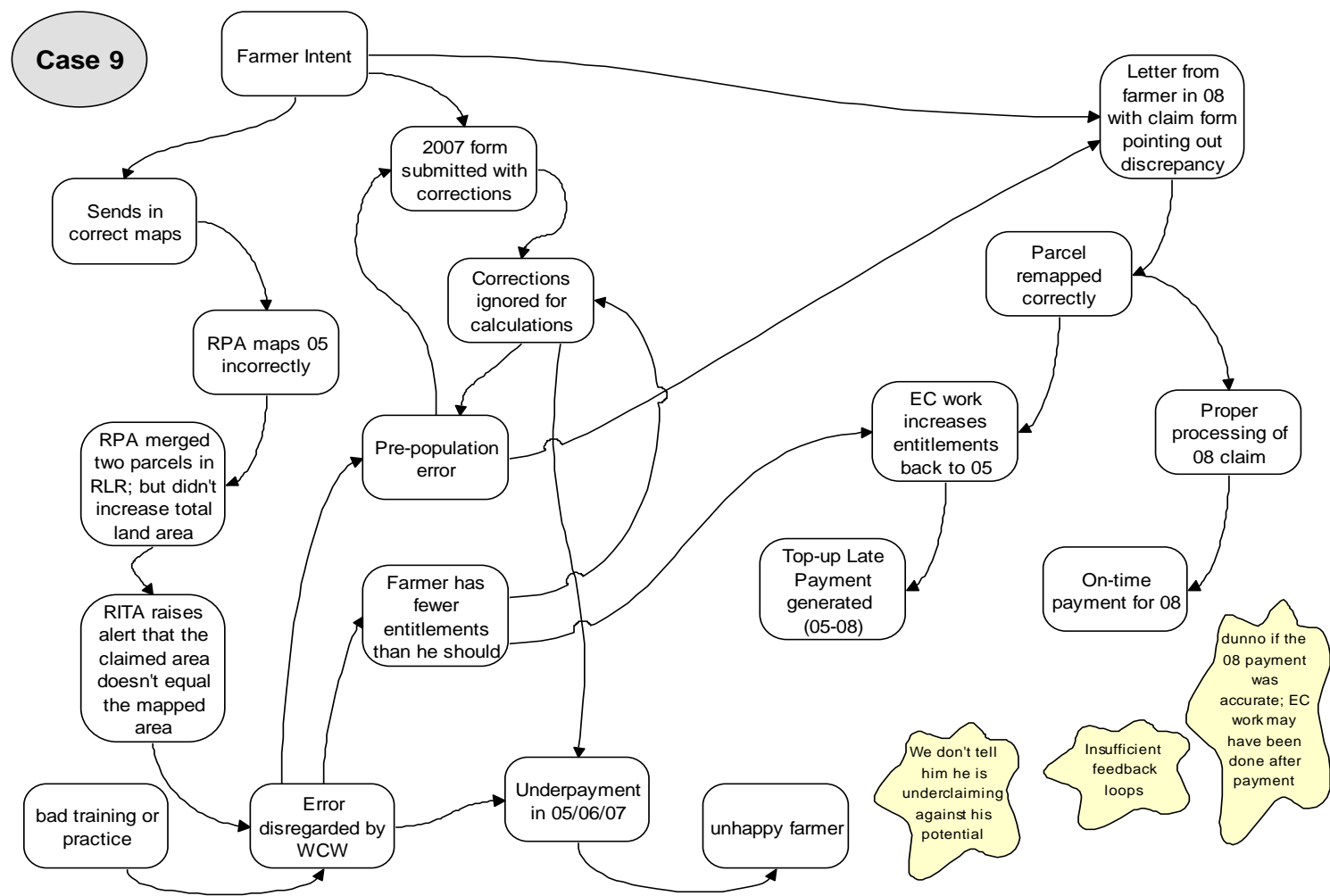
Appendix H – Case Pictograms (cont.)



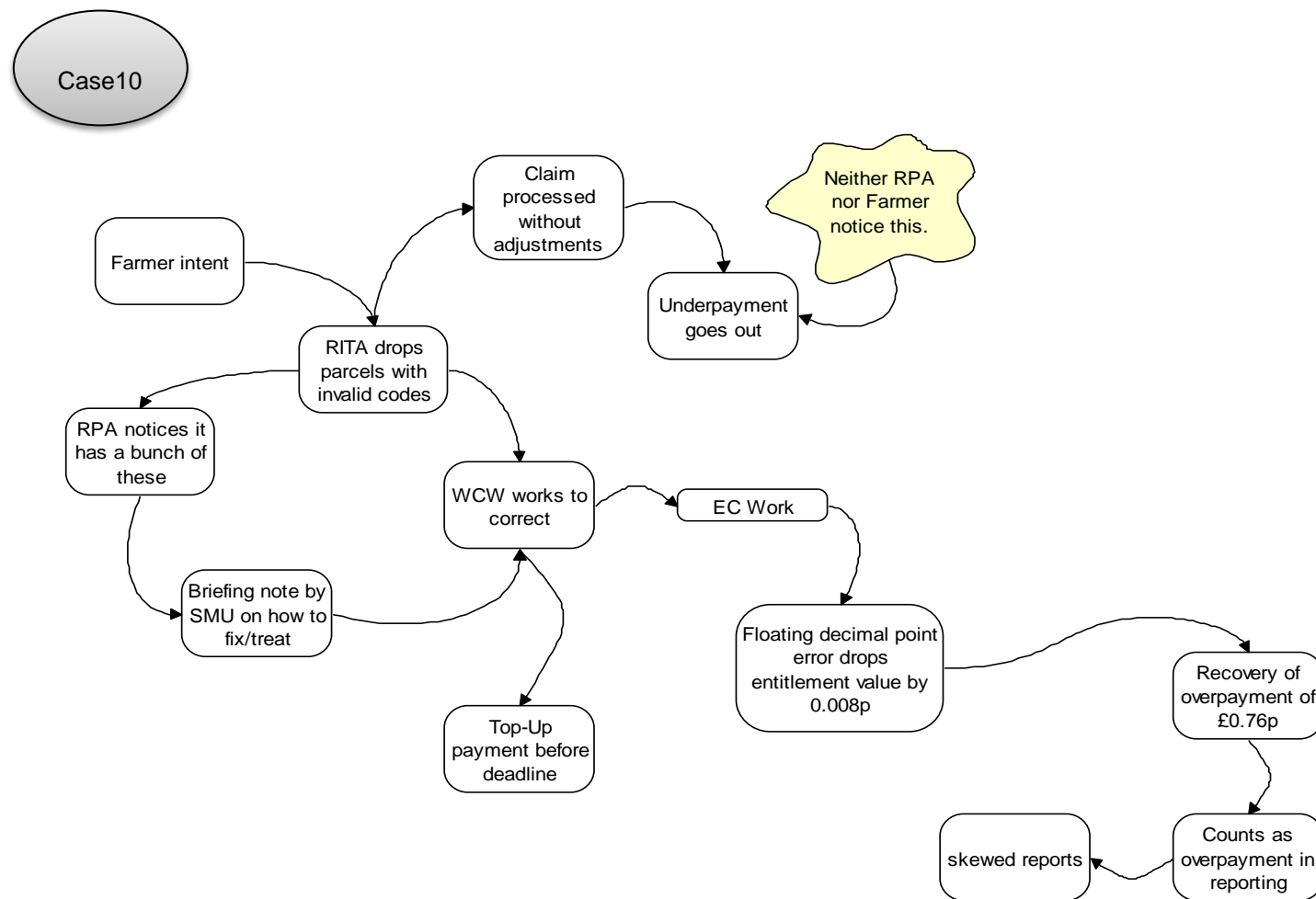
Appendix H – Case Pictograms (cont.)



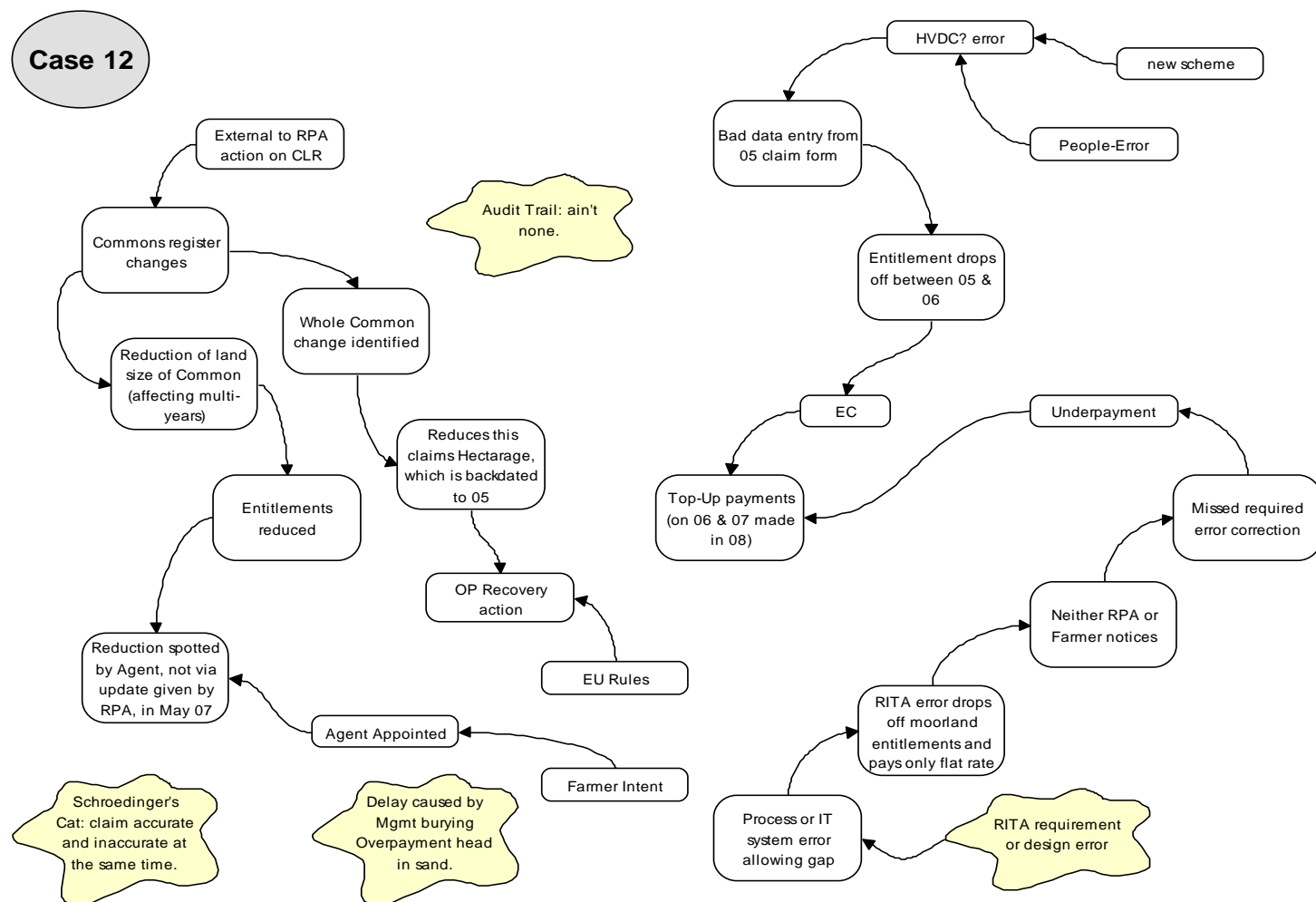
Appendix H – Case Pictograms (cont.)



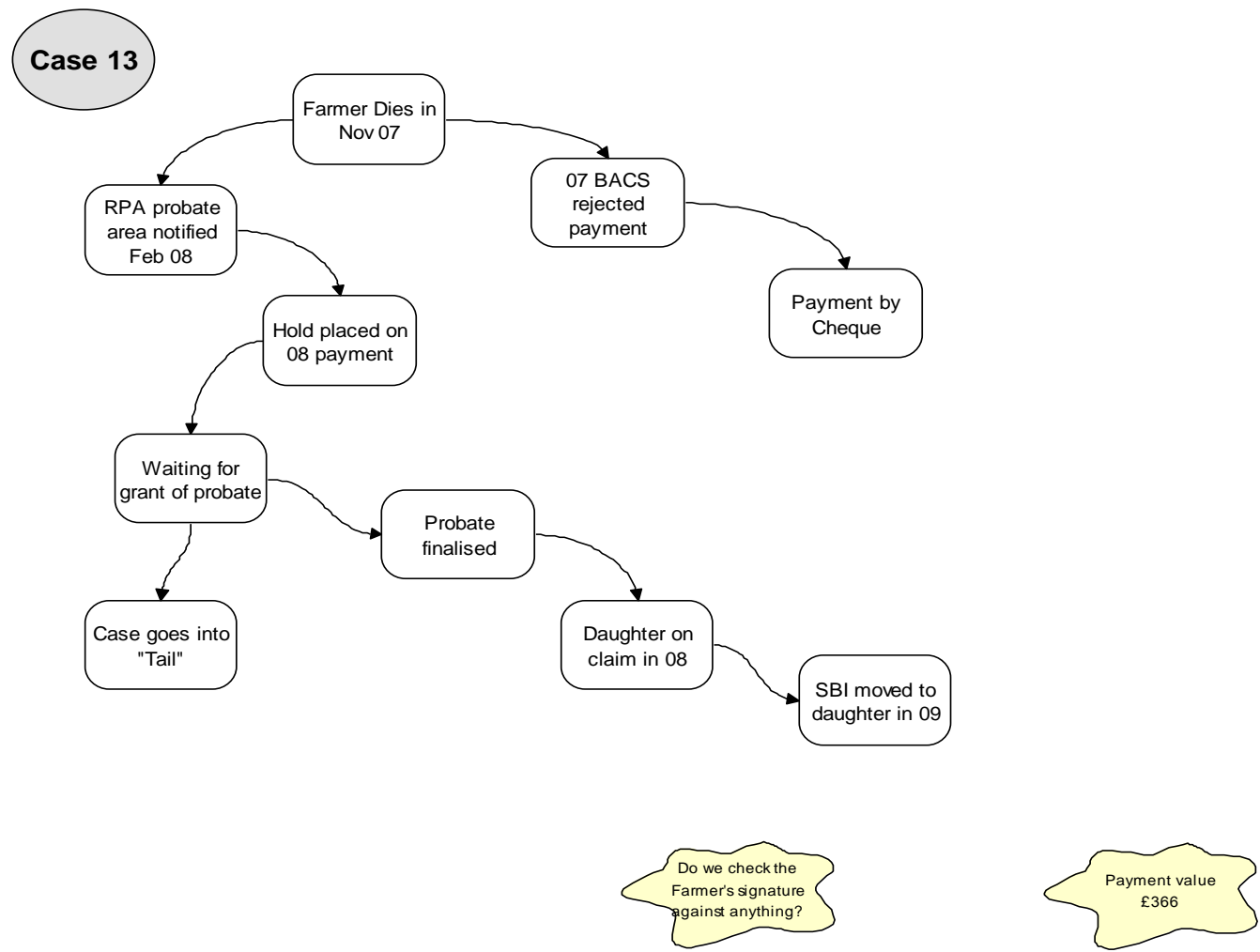
Appendix H – Case Pictograms (cont.)



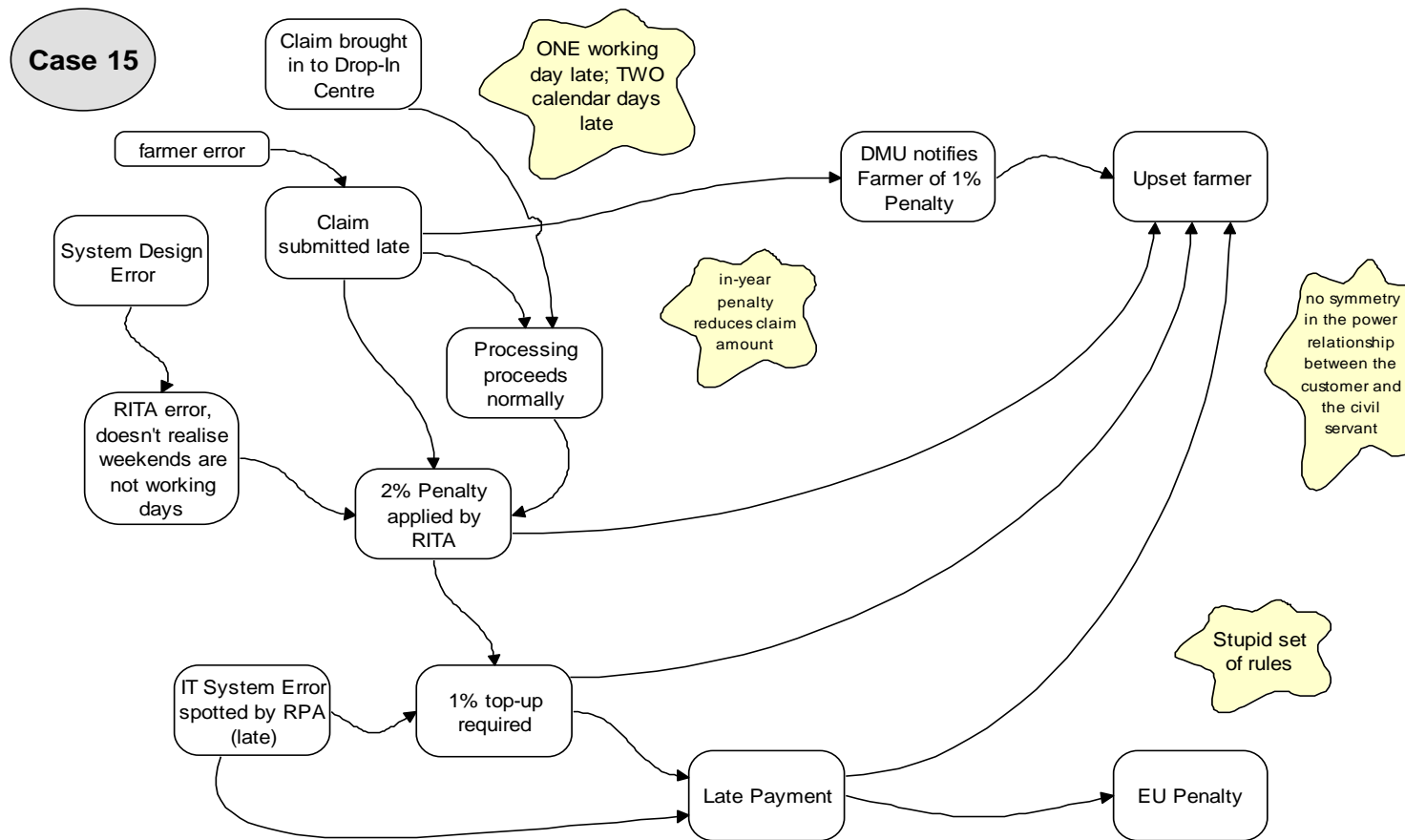
Appendix H – Case Pictograms (cont.)



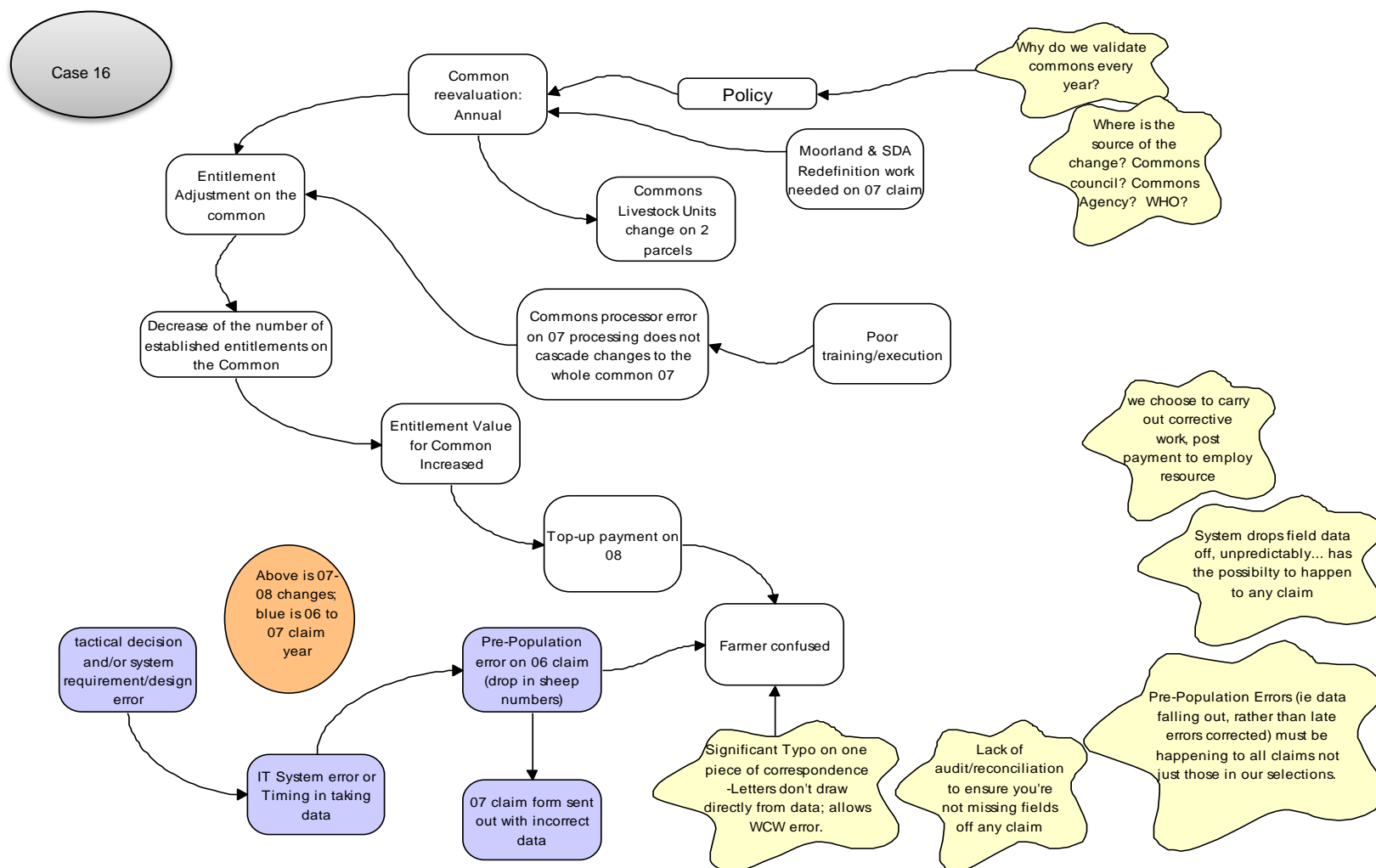
Appendix H – Case Pictograms (cont.)

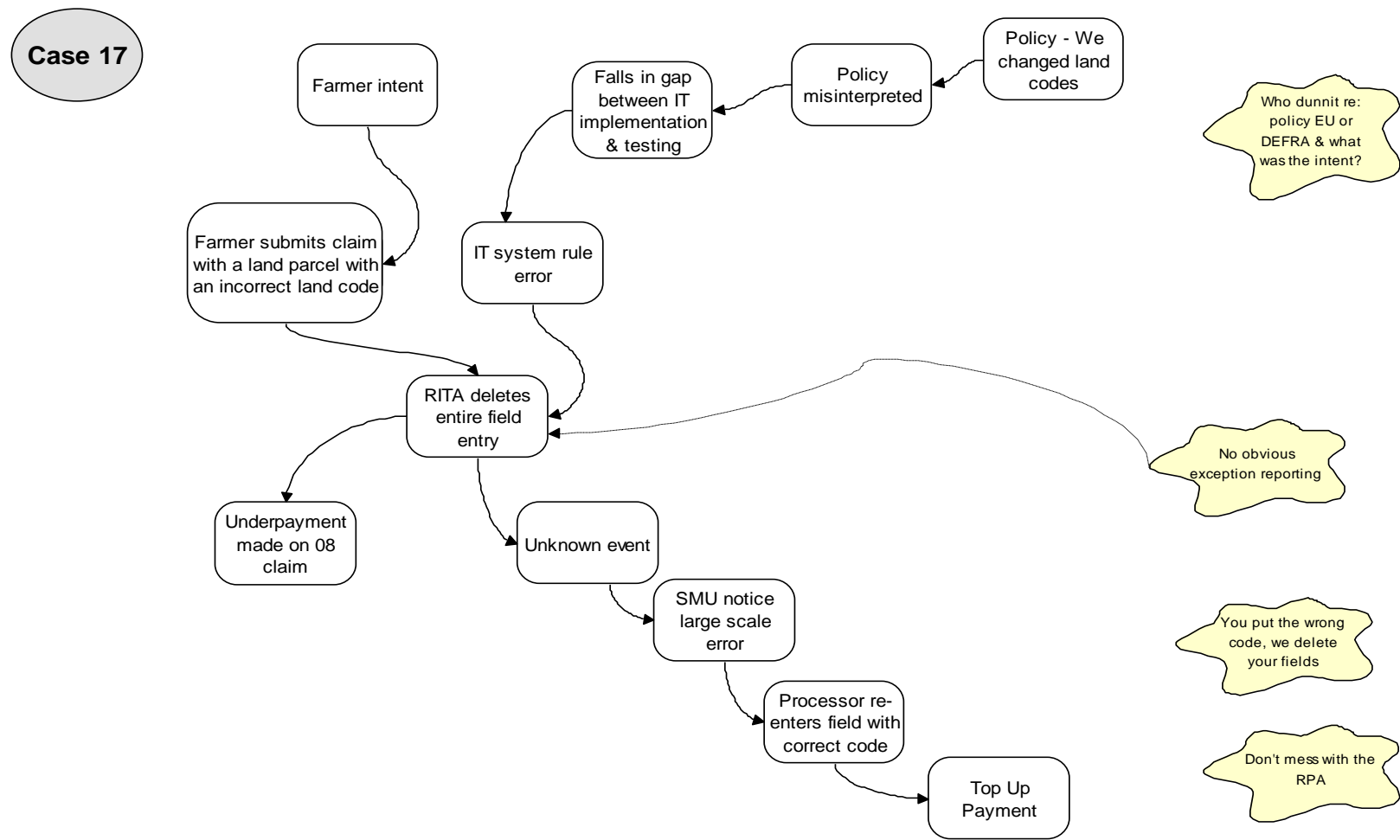


Appendix H – Case Pictograms (cont.)

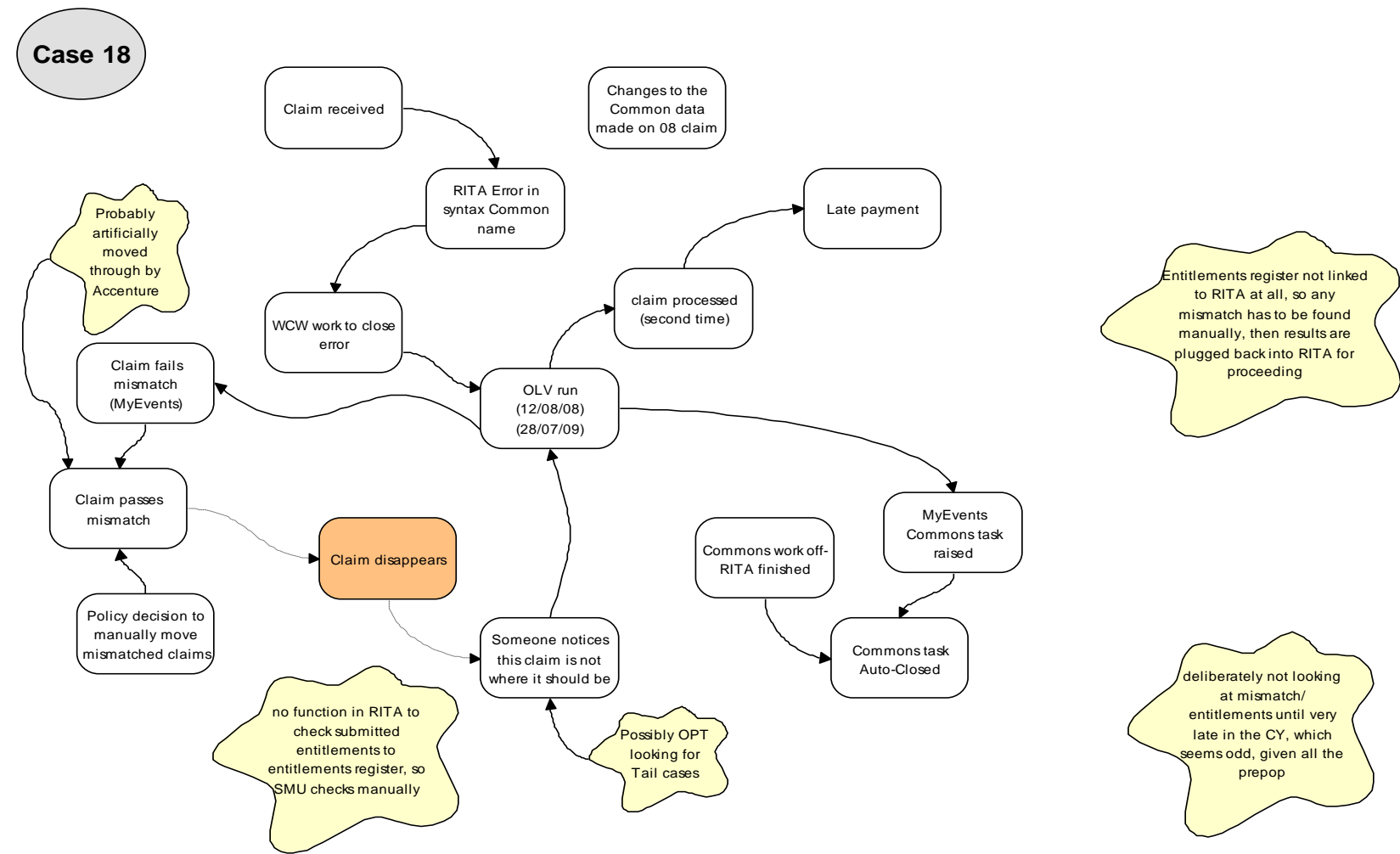


Appendix H – Case Pictograms (cont.)

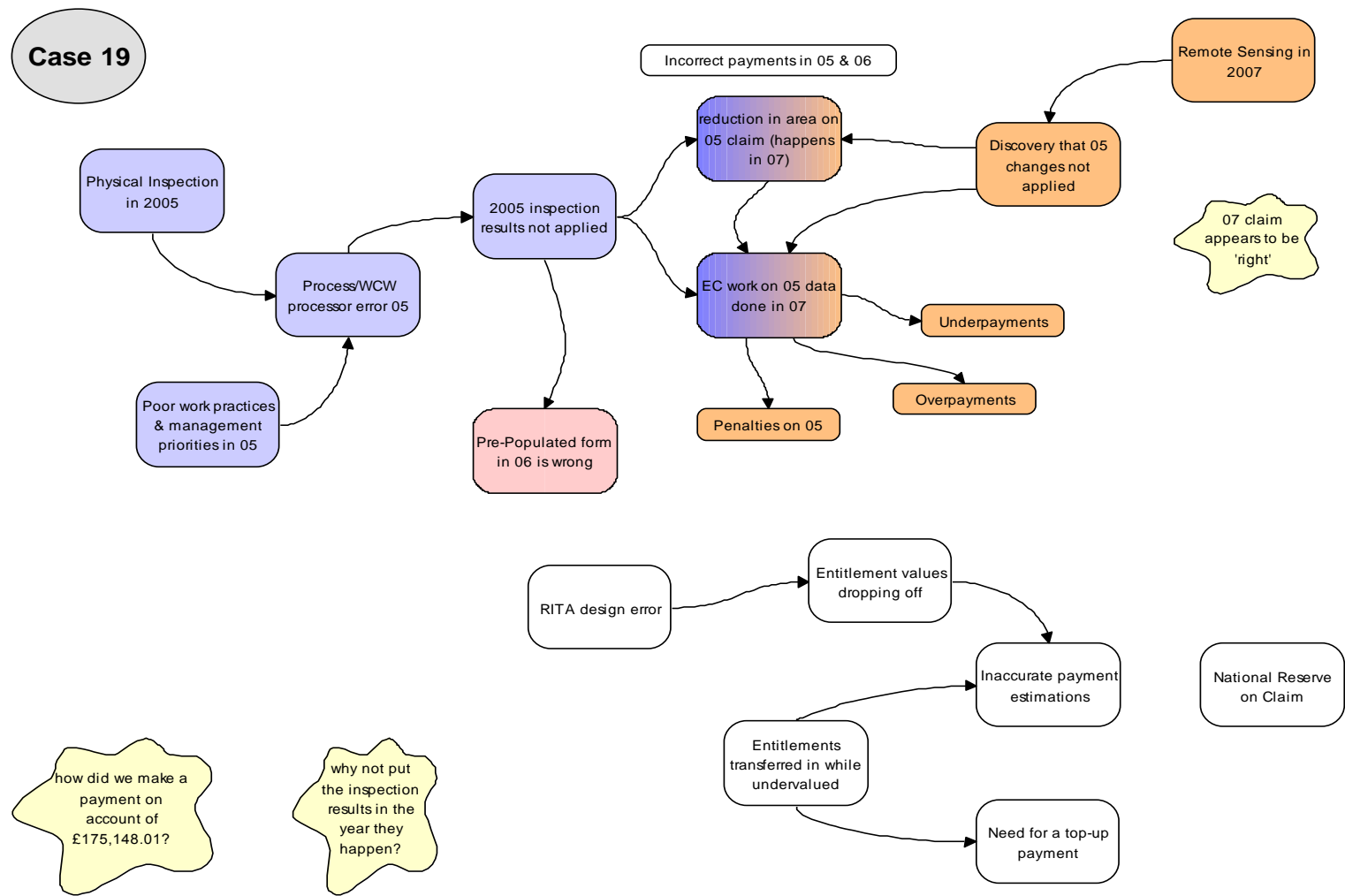


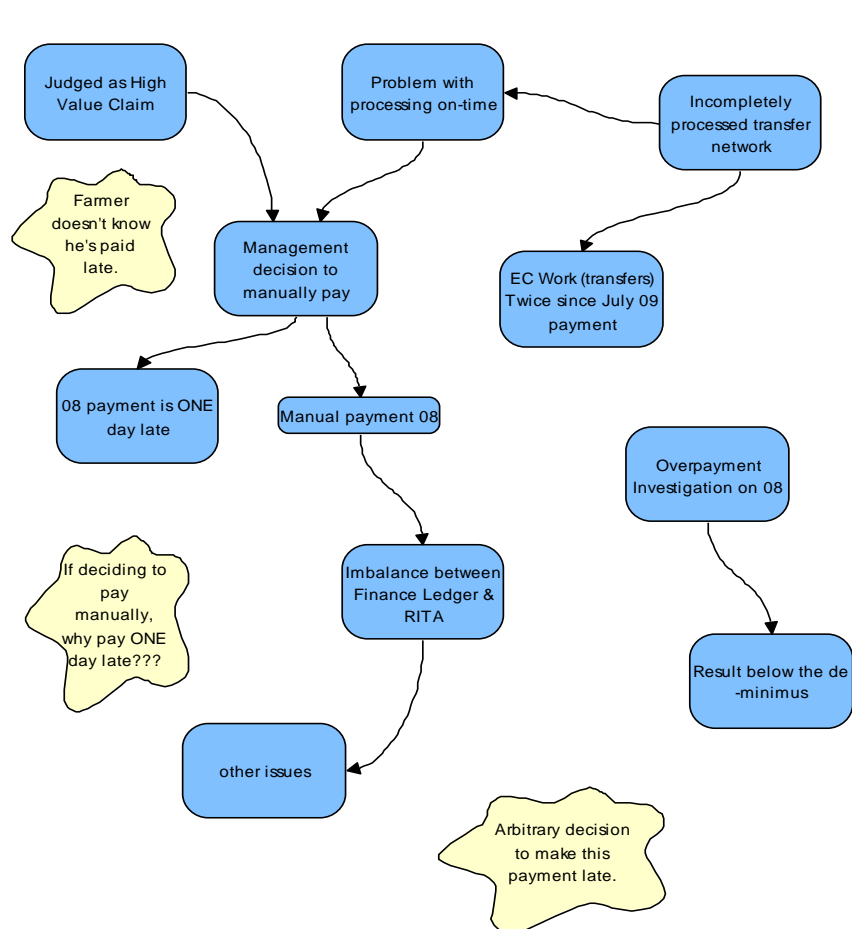


Appendix H – Case Pictograms (cont.)



Appendix H – Case Pictograms (cont.)



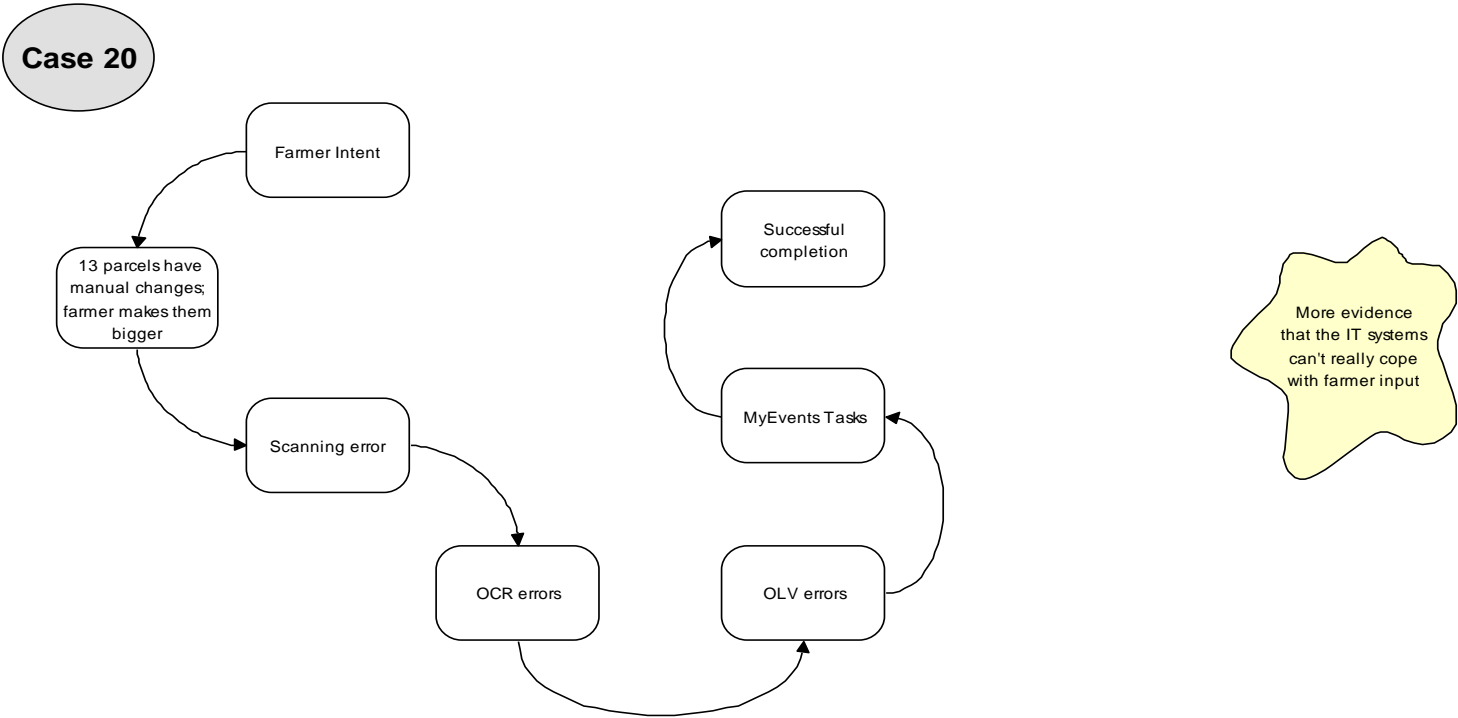


Case 19
cont.

Recurring
Entitlements
Transfers
complications

De-Minimus on
recovery of
overpayments but
not on other stuff.

Appendix H – Case Pictograms (cont.)



I. Appendix I – Longitudinal Study: Case Narratives

Case 1 (Late Payment)

In 2005 maps were sent to the claimant for confirmation of the size and use of land parcels. The claimant returned the maps, in which some eligible, claimable Arable land was not activated. By not activating this land, the claimant lost the ability to claim any of it in the future. No advice was given to the claimant that he was omitting the potentially eligible Arable land.

An illegal parcel (under the 0.1 size minimum) was created by the RPA from the detail returned by the farmer. This parcel was a segment of a larger field which should have been joined by the WCW, but was not.

In 2006, the pre-populated form was sent to the claimant containing the illegal parcel. The claimant activates his entitlements on the Arable land on his claim form. The claimant signs and returns the SP5 form.

The pre-population of the 2007 SP5 form drops/omits the pasture land that the claimant did not activate the year before. The claimant did not act to change/adjust this error.

The same year, the illegal, below-minimum parcel sent out in the 2006 pre-populated form was 'zeroed-out' by RITA, effectively dropping it from the claim. Dropping this illegal parcel also drops the overall size of the claim below the minimum claim threshold of 0.3. This triggers a penalty and disallowance in 2009 against this claimant, when the discrepancy is finally discovered.

Errors in RITA programming allowed a claim falling below the minimum total hectareage threshold (0.3), and the minimum field size (0.1) to be processed from 2007-2009.

In summary, this claim had a legitimate potential land size of 0.7 hectares, but through a series of technical errors, claimant errors, processor errors, and misunderstandings, the claimant was penalised and disallowed.

Case 2 (Late Payment)

In 2005, manual high volume data capture mistakenly captured a parcel value of 5.5 when in fact the actual value was 3.5. Upon investigation, the handwriting on the form was not perfectly clear and required closer inspection, but could be determined. This would later require corrective action.

The claimant also submitted parcel of 4.5 hectares which was determined in 2007 to be ineligible after an inspection. These actions led to Entitlement Correction to reduce the overall entitlements by the values described above, back to 2005. In 2008, the claimant transferred out all of their entitlements which created a small network of entitlement corrections to sort out. The entitlement reductions also triggered Overpayments investigations for those affected years.

It was these ongoing investigations which led to the delay of payment, after entitlement correction completed in late 2009. *Of note:* the claimant still submits a claim form with land but no entitlements, and therefore receives no payment on his processed claim.

Case 3 (Multiple Payments, before close of payment window)

Work was generated when the claimant submitted an altered 2008 SP5 claim form with a manual change in column 12 (*Area claimed for Protein, Energy, Nuts or HFA*). RITA rules dictate that if changes are made to column 12, the value in column 8 (*Eligible area on which to claim SPS*) must be reset and manually checked.

This check revealed a data pre-population error on that parcel. Final values for the 2007 claim matched the claimant's changes, but it appeared that a processor had changed the value for a short time. During that time the data

extract for the pre-population was taken, which created the need for the claimant's adjustment on the 2008 SP5.

This, however, was not the reason for the multiple payments. The multiple payments were generated as a result of a Commons investigation, which included the land on this claim. The investigation resulted in adjustments to the value of the entitlements for the Common. These adjustments were extended back to 2005, and the cumulative adjustment was the source of the second payment.

In the claim documentation, there are no reasons or explanations given for what prompted the Commons investigation and the subsequent entitlement adjustments. This appears to be a regular occurrence in Commons processing.

Case 4 (Multiple Payments, before close of payment window)

(Note: The descriptive state of this claim changed during the exercise. It was later determined that an additional payment was made after the close of the payment window, which would change this into a Late Payment case.)

This is a Commons claim and all the adjustments to payment value (both top-up and recovery) result from changes made to entitlement values. Of note: nothing has changed on the claim from the claimant's perspective. They have consistently submitted the same claim since 2005. However, despite this fact, three payment adjustments were made for the 2008 claim year.

These stem from a Commons investigation which led to the aforementioned entitlement value adjustments. There are no notes in the case file to say why the investigation was triggered or why Commons workers felt the adjustment was required. The greatest value of the three adjustments was a payment of £21.51 (not including a modulation rebate) which left the account £14.31 in credit.

Case 5 (Tail Case)

This appears to be a high-value claim of approximately £90,000. The claim is also involved in a large entitlement trading network. It is this network which seems to be the cause of the delay, in that the trades could not be sorted out before the payment window closed.

More specifically, the confusion seems to stem, not from this claim, but from the trading partner. The numbers of entitlements traded to this claim are not inordinately large, but the trading partner is deeply entangled in a much larger web of trading. This web appears to have taken too long to sort out, and the payment window closed before an accurate position could be set.

Case 6 (High Versions – Low Interactions)

This claim contains routine land-based adjustment work. The reason for its inclusion in this category was because of an error in desktop instructions. The instruction directed processors to 'submit' the claim after minor changes, rather than 'save' the changes. The former puts the claim into the workflows of RITA, rather than just simply saving a changed value, which is the goal of the latter. Typically, processors were advised to make a series of changes (while 'saving' periodically) then 'submitting' the claim at the end of the series. The 'submit' function changes the version number, while the 'save' function does not. This is not the reason for the creation of work.

Work was created as a result of the claimant not fully understanding the rules concerning the drawing of field boundaries. Standard Remote Sensing work picked up the discrepancy and put the claim in order.

Of note: this claim was also affected by the same 'Column 8 – Column 12' characteristic discussed in Case 3.

Case 7 (Low Versions – High Interactions)

The category of 'Low Versions – High Interactions' is misleading when attempting to understand any error associated with this case. While there were many interactions (some might say inordinately high interactions) all the processing work done on this case appears to be standard.

Remote sensing on the 2008 claim generated a series of land changes which affected the related entitlements. As a result, entitlement correction was performed cascading changes back to 2005. It was determined that poor mapping (both by the claimant and the agency) triggered the need for changes discovered by remote sensing, which, in turn, led to entitlement correction.

Case 8 (Late Payment – Multiple Payment)

For the 2008 claim year, the claimant submitted a letter along with the SP5 form which emphasised changes made to both claimed areas and entitlements. This letter led to investigations, which uncovered errors stemming from 2005 mapping.

In 2005, the claimant submits standard issue maps to the RPA, with the appropriate delineations of land parcels among the fields. An error is made by processors in translating that map into the RLR, where some boundaries and parcels are created/entered with mistakes. Total land area is entered incorrectly (in comparison to the claimant's maps) but the error goes ignored by the RPA because it appears the claimant is claiming less than is allowed.

An error is raised by RLR to say that the total land size on the claim does not match the total land size held in RLR. This error is not rectified.

For claim years 2006-7, the same land-size-discrepancy error is raised, and is not rectified. The claimant attempts to manually change the land-size on the claim form, but this change does not impact the resulting payment.

In 2008, the aforementioned letter submitted with the SP5 form raises the issue and an investigation discovers the error in the land parcel. The adjustment is

made to ensure accuracy for the 2008 claim, and entitlement correction is performed to cascade changes back to 2005.

In this case, the claimant made multiple attempts to correct data provided to him (via the pre-population of the SP5 form), but changes were not implemented until 2008.

The payment element which happened after the claimant window was not an element associated with the 2008 claim, but was instead a summary payment of the value of the increased entitlements after the adjustment.

Case 9 (Multiple Payments Before the Close of the Payment Window)

Note: The descriptive state of this claim changed during the exercise. It was later determined that a recovery was discovered after the close of the payment window, due to entitlement correction work. It should also be noted that the recovery value was £0.76.

The original error causing the multiple payments was a result of an error made in completing the SP5 form by the claimant. The claimant entered an out-of-date field code. Encountering this, RITA (in effect) ignored fields with this code, and as a result, the parcel(s) is not included in the original payment. The error was spotted and a second payment was made before the close of the payment window.

It should be noted that the same error was made by a significant number of claimants, all of which received similar treatment. It was determined by the SMU that the original ability for RITA to catch/prevent this error, now no longer functioned. Each case had to be identified and managed outside the normal workflow.

In relation to the recovery of £0.76 mentioned in the note above; this was a result of incomplete entitlement valuation after a correction exercise. The completed process generated a per-entitlement adjustment of £0.008, which

totalled £0.76 for the entire claim. This is below the 'de minimis' and will not be recouped.

Case 10 (Late Payment – Multiple Payments)

The late payment in this case was for £6.89 on a claim valued at £7,641.99. The payment is a result of adjustments to entitlement values on a Common, as well as from land missing from the 2005 claim due to data entry errors.

The land was also missing from the 2006 claim, despite the claimant's attempts to have it restored.

A secondary error occurred in processing the 2006 claim, when the historic entitlement value dropped off the payment value. This went unnoticed at the time by both the processor and the claimant.

Further adjustments were necessary as a result of a re-evaluation of a Common (for unknown reasons), whereupon the livestock units allotted to the claimant was adjusted upwards. At the same time, the overall land claimed for the SBI dropped significantly (from 59ha to 33ha).

This case exploration suffered significantly due to the lack of an audit trail. It could not be determined why many changes were made.

Case 11 (Tail Case)

This case was left unpaid after the close of the payment window due to the death of the original claimant during the claim year. The SBI was in normal probate processing until such a point as the rightful recipient of the payment could be legally identified. This is also a low value case (under £400).

Case 12 (Late Payment – Multiple Payments)

This claim was submitted to the agency via one of the drop-in centres on Saturday, 17 May. The deadline for submission was Thursday, 15 May; two calendar days, but one working day after the deadline. This claim should have incurred a 1% penalty.

The claim was processed normally and paid, but with a 2% penalty which had been incorrectly applied by RITA. System rules had not been updated to differentiate between weekend/holiday and work days. The error was caught on approximately 1,700 claims and adjustments were made, resulting in a top-up payment to the claimant after the close of the payment window.

Case 13 (Multiple Payments Before the Close of the Payment Window)

The addition of claimed livestock units to a Commons claim prompted the re-evaluation of the entitlement values (back to 2005). With the newly-accurate data, Commons redefinition resulted in a top-up payment for the claimant, which comprised of adjustments for all years back to 2005 inclusive.

During investigation, an SP5 pre-population error was discovered on the 2006 claim form. The claimant manually changed this figure and submitted the claim. Upon inspection of the claim records, it could not be determined how the incorrect figure ended up on the pre-populated form, as all the data contained on the record was accurate.

Case 14 (Multiple Payments Before the Close of the Payment Window)

This case shares a common history with Case 10, whereby invalid field codes were submitted by the claimant with the SP5 form. The codes triggered RITA to incorrectly 'zero-out' the field with the invalid codes. This action was not caught before payment. After the payment was made, the error was spotted and corrected. The claimant received a top-up payment before the close of the payment window.

Case 15 (Late Payment)

The root problem on this case could not be clearly defined. For an indeterminate reason, the claim failed to be included in the 2008 AVR run. It remained in RITA but outside the normal workflows until July 2009.

In discussing the case with members of OPT staff, it seems there were a number of cases that were similarly stuck requiring special effort to progress them forward to the next stage of processing.

Case 16 (Late Payment)

This claim was involved in a significantly large entitlement trading network. The entitlements traded in this network were also involved in multiple entitlement correction exercises, resulting in both overpayment and underpayment investigations. This work consumed the available time of the payment window, prompting an estimated partial payment, which was made one day after the deadline.

As there is no IT system functionality for the scope and scale of the work required to clarify the large trading networks and the related entitlement value adjustments, manual calculations were required.

Further, Remote Sensing performed in 2007 confirmed required adjustments dating back to 2005 for the land and entitlements originally linked to this claim. There is additional evidence showing that the results of the Remote Sensing inspection in 2007 confirmed what the agency knew in 2005, but were unable to adjust properly in the IT system.

Case 17 (Low Versions – High Interactions)

As mentioned previously, the category of ‘Low Versions – High Interactions’ is misleading when attempting to understand any error associated with this case as well. While there were many interactions (some might say inordinately high interactions) all the processing work done on this case appears to be standard.

However, the error associated with this case can be attributed to both the claimant and in scanning the claim form for the purpose of data uptake into RITA.

The claimant changed details on 13 parcels of land, inadvertently creating duplicate parcels. This addition created a standard task (Overclaim Recheck) which was rectified by standard claim processing.

Further work was created by errors in claim scanning, where only a portion of the required data was collected for a page-worth of parcels. Only half the image was available, and as such only half the parcel data was available. The resulting work was completed in standard claim processing.

J. Appendix J – Codes from each case

This appendix contains the initial set of codes describing the events which occurred for each claim during the period of the longitudinal study (2005-2009); see also section 8.2.2. The populated cells in the ‘Event’ column which are populated, but do not have any related text in the adjacent ‘Initial Coding’ cell were used as notes to assist the researcher in retaining both the narrative of the case and the emergent analysis related to that phase of the case.

Case number	Event	Initial coding
1	scheme change	scheme change
1	new pony paddock in 2005	claim land data change

1	no prep pop claim form	scheme change
1	manual entry of data	HVDC
1	map creation required in rlr	Standard mapping
1	creating base data	claim land data change
1	claimant fills out forms and maps	claimant intent
1	claimant claims pasture and not arable	claimant intent
1	rpa does not tell him of under claim	miserly culture
1	ineligible parcel created by RPA in RLR	Error in application of SPS rules
1	Processor error in mapping an ineligible parcel (2X parcels under min value)	Error in application of SPS rules
1	2006 prepap drops 2 parcels of pasture	Pre-Population Drop Error
1	claimant activates arable to keep 0.5 claim size	claimant intent
1	2007 prepap drops pasture	Pre-Population Drop Error
1	creates two parcels; one illegal/total illegal	Error in application of SPS rules
1	illegal claim sent out by rpa	IT system error
1	illegal claim sent out by rpa	Error in application of SPS rules
1	RITA deletes illegal parcel	RPA tactics
1	30% claim reduction penalty	Scheme rules
1	claim disallowed and 3 year penalty	Scheme rules
1	processing produces rule violating payment	IT system error

Case 2	policy	Policy RPA
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2	separate land and E's(Entitlements)	Policy RPA
2	prepop form with no E's sent out	Policy RPA
2	claimant submitting zero value claim form	claimant intent
2	E's transferred out in-toto (some land held)	claimant intent
2	RPA have six weeks to do this	EU Regulations
2	new scheme	
2	HVDC 2005	HVDC
2	low skill agency resource	RPA tactics
2	data entry HVDC 2005	2005 land data error
2	EC is done	EC
2	E adjustment ripple effect, from 07 back and forward in time and claim years	EC Time Ripple
2	E adjustment ripple effect, from 07 back and forward in time and claim years	EC Land Ripple
2	inspection finds ineligible feature 4.5ha	Inspection
2	adjust land and E in year	standard inspection processing
2	EC cascades across the entire network and spiders web	EC Land Ripple
2	OP investigation	Payment - Over
2	UP investigation	Payment - Under
2	more work	Resource Consumption
2	more work	Cost Consumption
2	more work	Time Consumption
2	result unknown	
2	cost	Cost Consumption

2	accuracy effect	Accuracy Drive
2	top up payment	Payment - Top-Up
2	reporting skew	Reporting Skew
2	top up payment while OP investigation	
2	not sure how errors are discovered	

Case 3	interpretation of CLR	Commons Standard Processing
3	E value increases on common land	Commons Standard Processing
3	adjustment of past payment	Common Entitlement Ripple
3	multiple payments	Payment - Top-Up
3	multiple payments	Payment - Under
3	scrutiny by Defra / EU	EU Penalty
3	no audit trail	
3	claim data altered to be wrong	Processor Error
3	prepop data taken on X date	Cycles Deadlines & Load mismatch
3	dateline Jan pre all work done	Cycles Deadlines & Load mismatch
3	prepop data picked up correctly from fields in RITA but data wrong	Entitlements Wrong
3	claimant adjusts error	Claimant intent
3	poor C8/C12 rules	IT system error
3	manual WCW intervention to adjust C8/C12 problems	standard claim processing
3	late multiple payment reporting skew	
3	overlapping time periods	

Case 4	claimant makes no change	claimant intent
4	stable claim data	Stable Claim Data
4	easily processed in rita	standard claim processing
4	easily processed in rita	successful completion
4	normal commons working	Commons Standard Processing
4	interpretation of CLR	Commons Standard Processing
4	changes to another SBI affect this SBI	Commons Land Ripple Annual
4	routine entitlement changes	Common Entitlement Ripple
4	unstable commons data	Commons Land Ripple Annual
4	payment made after window closed	Payment - Late
4	late payments	Payment - Late
4	late payments reporting skewed	Reporting Skew
4	commons entitlement adjustment	Commons Standard Processing
4	wrong payment made in past	Payment - Over
4	overpayment investigation	Payment - Over
4	recoveries	Payment - Recovery
4	top up	Payment - Top-Up
4	do nowt	Fear Culture
4	upset claimant	Claimant unhappy

Case 5	RITA cannot handle timing differences in transfers and correction sequence	IT system error
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5	multiple E's transferred on multi SBI's	EC Land Ripple
5	large intricate interdependent spiderweb of complexity	
5	EC on E transferred to multiple SBI's	EC
5	lots of work	Time Consumption
5	resource consumption	Resource Consumption
5	cost	Cost Consumption
5	NAO	
5	network management	IT system error
5	processual takt/lag time exceeds available time	Time Consumption
5	partial payment may 09	Payment - Partial
5	match up payments RITA vs manual exercise	RPA tactics
5	match up payments RITA vs manual exercise	IT system error
5	match up payments RITA vs manual exercise	Non-standard processing
5	claimant gets some money before deadline	Payment - Under
5	uncertainty in claimants mind	Claimant unhappy
5	insufficient resource	
5	late potential claim	Time Consumption
5	mgt policy	RPA tactics
5	decide to pay	RPA tactics
5	deadline	Scheme rules
5	rules on EC's and transfer	
5	EC can lead to EV changes through the network	

5	early IT system didn't track date of transfers which is odd in a time critical system	
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Case 6	IT system error C8/C12	IT system error
6	manual WCW intervention	standard claim processing
6	bad instructions	Change Management
6	policy stuff	Change Management
6	lots of versions	standard claim processing
6	adjust field data in RLR & claim	standard claim processing
6	adjust field data in RLR & claim	Standard mapping
6	claimant manually adjusts prepop	claimant intent
6	claimant doesn't understand mapping guidelines	Customer Guidance Error
6	remote sensing was done	EU Regulations
6	data align rather than correct	
6	just get the damn thing through OLV	
6	calculation	
6	decoupling	
6	why bother with land use codes	
6	alignment sends it thru, not accuracy	
6	change from tasks to WCW bad training	
6	business didn't really utilise this	
6	not right but tasks done	
6	bodged it on paper files	
6	RS originally crop based in summer	
6	aim of originally process tasks holistically on a claim rather than individually	

6	berries and cherries set up entitlements could come out of those crops and still have SP due	
6	RS aug 2009 for may/june 2009 claim year checks mapping and land use and good order but don't care about land use in SPS	

Case	claimant intent in yr 0	claimant intent
7		
7	14 new parcels added to form in yr0	claim land data change
7	rita rlr extract taken in yr0	standard inspection processing
7	remote sensing done yr 0	standard inspection processing
7	2005 maps inaccurate yr-3	2005 land data error
7	adjust land parcel data yr0	standard claim processing
7	laugh at claimant for under claim	miserly culture
7	fields not in rlr	claim land data change
7	unrecognised field code	claimant wrong field code
7	OLV errors	standard claim processing
7	adjusted land data	standard claim processing
7	yr-3-2-1 2.34 Ha land	EC
7	EC work	EC
7	laugh at claimant for under claim	miserly culture
7	adjust entitlements for -3-2-1	EC
7	overpayment investigation	Payment - Over
7	wcw verifies RS results with claimant	
7	if one person does all op and EC work it might lead to different outcome	

7	RS cases /OLV error forced flow to my events - complete mess	
7	offsetting overs and unders and knowledge and role	
7	this work contributes to this possibly a risky claim and having an inspection	

Case	claimant intent	claimant intent
8		
8	sends in correct maps	standard claim processing
8	RPA maps 05 incorrectly	2005 Land Data Error
8	RPA merged two parcels in RLR but didn't increase total area	Mapping Error
8	RITA raises alert that the claimed area doesn't equal the mapped area	standard claim processing
8	bad training/practice	Change Management
8	Error disregarded by WCW	Processor Error
8	Claimant has fewer entitlements than he should	Entitlements Wrong
8	Pre-Pop error	Data for following Pre-Population wrong
8	2007 form submitted with corrections	claimant intent
8	Corrections ignored for calculations	IT system error
8	Corrections ignored for calculations	Processor Error
8	Underpayment in 05/06/07	Payment - Under
8	unhappy claimant	Claimant unhappy
8	top-up late payment generated (05-08)	Payment - Top-Up
8	EC work increases entitlements back to 05	EC Time Ripple

8	Parcel remapped correctly	Standard mapping
8	Letter from claimant in 08 with claim form pointing out the discrepancy	Claimant intent
8	proper processing of 08 claim	standard claim processing
8	on-time payment in 08	successful completion
8	We don't tell him he is underclaiming against his potential	
8	Insufficient feedback loops	
8	don't know if the 08 payment was accurate; EC work may have been done after payment	

Case 9	claimant intent	claimant intent
9	scanning drops parcel with invalid codes	claimant wrong field code
9	scanning drops parcel with invalid codes	IT system error
9	scanning drops parcel with invalid codes	system maintenance error
9	rpa notices a bunch of these	Non-standard processing
9	briefing note by SMU on how to fix	Non-standard processing
9	WCW work to correct	standard claim processing
9	WCW work to correct	Resource Consumption
9	top up payment before deadline	Payment - Top-Up
9	claim processed without claimant adjustments	IT system error
9	UP goes out	Payment - Under
9	EC work	EC
9	floating decimal point error drops EV by 0.008p	IT system error

9	recovery of OP of 0.76p	Payment - Recovery
9	counts as OP in reporting	Reporting Skew
9	skewed reports	Reporting Skew
9	neither claimant nor rpa notice UP	

Case 10	External to RPA action on CLR	Commons standard processing
10	Commons register changes	Commons standard processing
10	Whole Common change identified	Commons standard processing
10	Reduction of land size of Common (affecting multi-years)	Commons standard processing
10	Reduces this claim's Hectarage, which is backdated to 05.	Common Land Ripple
10	Entitlements reduced	Common Entitlement Ripple
10	OP recovery action	Payment - Recovery
10	EU rules	EU Regulations
10	Reduction spotted by agent; not via update given by RPA in May 07	Non-standard processing
10	Agent appointed	claimant intent
10	claimant intent	claimant intent
10	Shroedinger's Cat: claim accurate and inaccurate at the same time	
10	Delay caused by management burying head in sand.	Delay
10	Delay caused by management burying head in sand.	RPA tactics
10	RITA requirement or design error	

10	Process or IT system error allowing gap	IT system error
10	RITA error drops off moorland entitlements and pays only flat rate	IT system error
10	Neither RPA or Claimant notices	
10	Missed required error correction	Processor Error
10	Underpayment	Payment - Under
10	Top-Up payments (on 06-07 made in 08)	Payment - Top-Up
10	EC	EC
10	Entitlement drops off between 05 & 06	IT system error
10	Bad data entry from 05 claim form	2005 Land Data Error
10	HVDC error	HVDC
10	New scheme	Scheme change
10	people-error	Processor Error
10	Audit trail? Ain't none	

Case 11	claimant dies in nov 07	customer data change
11	07 bacs rejected	bank error
11	payment by cheque	bank error
11	rpa notified of probate feb 08	standing data change
11	hold placed on 08 payment	standard customer data processing
11	waiting for grant of probate	standard customer data processing
11	case goes into tail	standard customer data processing
11	probate finalised	standard customer data processing

11	daughter on claim in 08	standard customer data processing
11	sbi moved to daughter in 09	standard customer data processing
11	daughter on claim in 08	standard customer data processing
11	do we check the signature at all	

Case 12	claim brought to drop in centre	claimant intent
12	claimant error	claimant error
12	claim one working day, 2 calendar days late	miserly culture
12	claim submitted late	claimant error
12	processing proceeds normally	standard claim processing
12	2% penalty applied by rita	IT system error
12	in-year penalty reduces claim amount	standard claim processing
12	dmu notifies claimant of 1% penalty	standard claim processing
12	upset claimant	Claimant unhappy
12	system design error	
12	rita doesn't know it is not working day	system maintenance error
12	IT system error spotted by RPA (late)	Non-standard processing
12	1% top up required	Non-standard processing
12	late payment	Payment - Late
12	EU penalty	EU Penalty
12	no symmetry in power relationship between the customer and civil servant	

Case 13	tactical decision and or system reqt design error	RPA tactics
13	tactical decision and or system reqt design error	IT system error
13	IT system error or timing in taking data	IT system error
13	IT system error or timing in taking data	Cycles Deadlines and Load mismatch
13	prepop error on 06 claim (drop in sheep numbers)	Pre-Population Drop Error
13	07 claim form sent out with incorrect data	Data for following Pre-Population wrong
13	policy	Policy RPA
13	common reevaluation annual	Commons Standard Processing
13	commons LU change on 2 parcels	Commons Standard Processing
13	Moorland and sda redefinition work needed on 07 claims	Commons Standard Processing
13	commons processor error on 07 processing does not cascade to whole common 07	Commons Standard Processing Error
13	poor training execution	Change Management
13	entitlement adjustment on the common	Common Entitlement Ripple
13	decrease of the number of established E's on common	Common Entitlement Ripple
13	E value for common increased	Common Entitlement Ripple
13	top up payment on 08	Payment - Top-Up
13	claimant confused	Claimant unhappy

13	we choose to carry out corrective work post payment to employ resource	
13	system drops field data off, unpredictably - has the possibility to happen to any claim	
13	pre pop errors (ie data falling out, rather than late data corrected must be happening to all claims, not just those in our selections	
13	lack of audit / reconciliation to ensure no missing fields off any claim	
13	significant typo on commons correspondence - letters don't draw directly from the data; allows wcw error	

Case 14	claimant intent	Claimant intent
14	claimant submits claim with wrong field code	Claimant wrong field code
14	rita deletes entire field entry	IT system error
14	underpayment made on 08 claim	Payment - Under
14	unknown event	
14	smu notice large scale error	Non-standard processing
14	processor reenters field with correct code	standard claim processing
14	top up payment made	Payment - Top-Up
14	falls in gap between IT implementation and testing	IT system error
14	policy misinterpreted	RPA policy

14	policy we changed land codes	Change Management
14	who is responsible re:policy EU or DEFRA and what was the intent	
14	no obvious exception reporting	
14	you put the wrong code, we delete your fields	
14	don't mess with the RPA	

Case 15	claim received	standard claim processing
15	changes to the common data made on 08 claim	Commons Standard Processing
15	rita error in syntax common name	
15	WCW work to close error	Commons Standard Processing
15	OLV run 08/08 and 07/09	IT system error
15	OLV run 08/08 and 07/09	Non-standard processing
15	claim fails mismatch	Commons Standard Processing
15	policy decision to manually move mismatched claims	RPA tactics
15	claim passes mismatch	Commons Standard Processing
15	claim disappears	IT system error
15	claim processed second time	Non-standard processing
15	late payment	Payment - Late
15	my events commons task raised	standard claim processing
15	commons work off rita finished	Commons Standard Processing
15	commons task autoclosed	RPA tactics

15	someone notices this claim is not where it should be	Non-standard processing
15	no function in rita to check submitted entitlements to ER so smu checks manually	
15	deliberately not looking at mismatch entitlements until very late in claim year which seems odd given all the prepop errors	
15	ER not linked to rita at all, so any mismatch has to be found manually, then results are plugged back into rita for processing	

Case 16	Physical inspection 2005	Inspection
16	Poor work practices and management priorities in 05	RPA tactics
16	Process/WCW processor error in 05	Processor Error
16	2005 inspection results not applied in 05	Processor Error
16	Pre-pop form in 06 is sent out wrong	Data for following Pre-Population wrong
16	Reduction in area on 05 claim (happens in 07)	EC Land Ripple
16	EC work on 05 data done in 07	EC
16	Penalties on 05	Penalty - Claimant
16	Overpayments	Payment - Over
16	Underpayments	Payment - Under
16	Discovery that 05 changes not applied	Non-standard processing

16	Remote Sensing in 07	Inspection
16	07 Claim appears to be 'right'	
16	RITA design error	IT system error
16	Entitlement values dropping off	IT system error
16	Inaccurate payment estimations	Non-standard processing
16	Entitlements transferred in while undervalued	Entitlements Wrong
16	need for a top-up payment	Payment - Top-Up
16	Incorrect payments in 05 & 06	Payment - Under
16	How did the RPA make a payment on account of £175,148.01??	
16	Why not put the inspection results in the year they happen?	
16	Judged as high-value claim	RPA tactics
16	Management decision to manually pay	RPA tactics
16	Claimant doesn't know he's paid late	
16	08 Payment is ONE day late	Payment - Late
16	Manual payment 08	Payment - Manual
16	Incompletely processed transfer network	Cycle Deadlines and Load mismatch
16	EC work (transfers) Twice since July 09 payment	EC
16	Overpayment investigation on 08	Non-standard processing
16	Result below the de-minimus	
16	Imbalance between Finance Ledger & RITA	IT system error
16	Other issues	
16	If deciding to pay manually, why pay ONE day late??	

16	Arbitrary decision to make this payment late.	
16	National Reserve on claim	standard claim processing
16	Typical entitlements transfers mess	
16	De-Minimus on recovery of overpayments, but not on other stuff.	

Case	claimant intent	claimant intent
17		
17	claimant changes 13 parcels	claim land data change
17	scanning error	scanning error
17	ocr errors	OCR errors
17	olv errors	standard claim processing
17	my events tasks	standard claim processing
17	successful completion	successful completion

K. Appendix K – Early codes emerging from case narrative

Early codes					
	Description	Total		Description	Total
1	2005 land data error	5	41	Payment - Under	9
2	Accuracy Drive	1	42	Penalty - Claimant	3
3	bank error	2	43	Policy RPA	4
4	Change Management	5	44	Pre-Population Drop Error	3
5	claim land data change	5	45	Processor error	8
6	Common Entitlement Ripple	6	46	Reporting Skew	4
7	Common Land Ripple	1	47	Resource Consumption	3
8	Commons Land Ripple Annual	2	48	RPA policy	1
9	Commons Standard Processing	17	49	RPA tactics	14
10	Commons Standard Processing Error	1	50	scanning error	1
11	Cost Consumption	3	51	scheme change	3
12	customer data change	1	52	Scheme rules	3
13	Customer Guidance Error	1	53	Stable Claim Data	1
14	Cycle Deadlines and Load mismatch	4	54	standard claim processing	27
15	Data for following Pre-Population wrong	5	55	standard customer data processing	7
16	Delay	3	56	standard inspection processing	3

17	EC	9	57	Standard mapping	3
18	EC Land Ripple	4	58	standing data change	1
19	EC Time Ripple	2	59	successful completion	4
20	Entitlements Wrong	3	60	system maintenance error	2
21	Error in application of SPS rules	4	61	Time Consumption	4
22	EU Penalty	2	62	Payment - Manual	1
23	EU Regulations	3	Grand Total		308
24	claimant error	2			
25	claimant intent	23			
26	Claimant unhappy	5			
27	claimant wrong field code	3			
28	Fear Culture	1			
29	HVDC	3			
30	Inspection	5			
31	IT system error	26			
32	Mapping Error	1			
33	miserly culture	4			
34	Non-standard processing	14			
35	OCR errors	1			
36	Payment - Late	6			
37	Payment - Over	8			
38	Payment - Partial	2			
39	Payment - Recovery	3			
40	Payment - Top-Up	9			

L. Appendix L – UN Resolution 1999/23 – Establishing HPD

REGULATION NO. 1999/23

UNMIK/REG/1999/23

15 November 1999

ON THE ESTABLISHMENT OF THE HOUSING AND PROPERTY DIRECTORATE AND THE HOUSING AND PROPERTY CLAIMS COMMISSION

The Special Representative of the Secretary-General,

Pursuant to the authority given to him under United Nations Security Council [resolution 1244 \(1999\)](#) of 10 June 1999,

Taking into account United Nations Interim Administration Mission in Kosovo (UNMIK) [Regulation No. 1999/1](#) of 25 July 1999 on the Authority of the Interim Administration in Kosovo,

For the purpose of achieving efficient and effective resolution of claims concerning residential property,

Hereby promulgates the following:

Section 1

HOUSING AND PROPERTY DIRECTORATE

1.1 The Housing and Property Directorate (the “Directorate”) shall provide overall direction on property rights in Kosovo until the Special Representative of the Secretary-General determines that local governmental institutions are able to carry out the functions entrusted to the Directorate. In particular, the Directorate shall:

- (a) (a) Conduct an inventory of abandoned private, state and socially owned housing;
- (b) (b) Supervise the utilization or rental of such abandoned property on a temporary basis for humanitarian purposes; rental monies of abandoned private and socially owned property shall be recorded in a separate account in trust for the rightful owner, subject to deduction of relevant expenses;
- (c) (c) Provide guidance to UNMIK, including CIVPOL and UNHCR, as well as KFOR on specific issues related to property rights; and
- (d) (d) Conduct research leading to recommended policies and legislation concerning property rights.

1.2 As an exception to the jurisdiction of the local courts, the Directorate shall receive and register the following categories of claims concerning residential property including associated property:

- (a) (a) Claims by natural persons whose ownership, possession or occupancy rights to residential real property have been revoked subsequent to 23 March 1989 on the basis of legislation which is discriminatory in its application or intent;
- (b) (b) Claims by natural persons who entered into informal transactions of residential real property on the basis of the free will of the parties subsequent to 23 March 1989;
- (c) (c) Claims by natural persons who were the owners, possessors or occupancy right holders of residential real property prior to 24 March 1999 and who do not now enjoy possession of the property, and where the property has not voluntarily been transferred.

The Directorate shall refer these claims to the Housing and Property Claims Commission for resolution or, if appropriate, seek to mediate such disputes and, if not successful, refer them to the Housing and Property Claims Commission for resolution.

Section 2

HOUSING AND PROPERTY CLAIMS COMMISSION

2.1 The Housing and Property Claims Commission (the "Commission") is an independent organ of the Directorate which shall settle private non-commercial disputes concerning residential property referred to it by the Directorate until the Special Representative of the Secretary-General determines that local courts are able to carry out the functions entrusted to the Commission.

2.2 The Commission shall initially be composed of one Panel of two international and one local members, all of whom shall be experts in the field of housing and property law and competent to hold judicial office. The Special Representative of the Secretary-General shall appoint the members of the Panel and shall designate one member as the chairperson. The Special Representative of the Secretary-General may establish additional Panels of the Commission in consultation with the Commission.

2.3 Before taking office, the members of the Commission shall make in writing the following solemn declaration:

"I solemnly declare that I will perform my duties and exercise my power as a member of the Housing and Property Claims Commission honourably, faithfully, impartially and conscientiously."

The declarations shall be put in the archives of the Commission.

2.4 The Commission shall be entitled to free access to any and all records in Kosovo relevant to the settlement of a dispute submitted to it.

2.5 As an exception to the jurisdiction of local courts, the Commission shall have exclusive jurisdiction to settle the categories of claims listed in section 1.2 of the present regulation. Nevertheless, the Commission may refer specific separate parts of such claims to the local courts or administrative organs, if the adjudication of those separate parts does not raise the issues listed in section 1.2. Pending investigation or resolution of a claim, the Commission may issue provisional measures of protection.

2.6 The Special Representative of the Secretary-General shall establish by regulation the Rules of Procedure and Evidence of the Commission, upon the recommendation of the Commission. Such rules shall guarantee fair and impartial proceedings in accordance with internationally recognized human rights standards. In particular, such rules shall include provisions on reconsideration of decisions of the Commission.

2.7 Final decisions of the Commission are binding and enforceable, and are not subject to review by any other judicial or administrative authority in Kosovo.

Section 3 EXECUTIVE DIRECTOR AND STAFF

The Special Representative of the Secretary-General shall appoint an Executive Director of the Directorate after consultation with the Executive Director of the United Nations Centre for Human Settlements (UNCHS) (Habitat). The Executive Director shall appoint the staff of the Directorate, which shall comprise local experts, and shall allocate staff to the Commission who shall be under the exclusive control of the Commission.

Section 4 APPLICABLE LAW

The provisions of the applicable laws relating to property rights shall apply subject to the provisions of the present regulation.

Section 5 ENTRY INTO FORCE

The present regulation shall enter into force on 15 November 1999.

Bernard Kouchner
Special Representative of the Secretary-General

M. Appendix M – UN Resolution 2000/60 – HPD Governance

UNMIK/REG/2000/60

Official Gazette

31 October 2000

REGULATION NO. 2000/60

UNMIK/REG/2000/60

31 October 2000

ON RESIDENTIAL PROPERTY CLAIMS AND THE RULES OF PROCEDURE AND EVIDENCE OF THE HOUSING AND PROPERTY DIRECTORATE AND THE HOUSING AND PROPERTY CLAIMS COMMISSION

The Special Representative of the Secretary-General,

Pursuant to the authority given to him under United Nations Security Council resolution 1244 (1999) of 10 June 1999,

Taking into account United Nations Interim Administration Mission in Kosovo (UNMIK) Regulation No. 1999/1 of 25 July 1999, as amended, on the Authority of the Interim Administration in Kosovo,

Recalling UNMIK Regulation No. 1999/23 of 15 November 2000 on the Establishment of the Housing and Property Directorate and the Housing and Property Claims Commission,

For the purpose of further elaborating the law relating to residential property in Kosovo, and establishing the Rules of Procedure and Evidence of the Housing and Property Directorate and the Housing and Property Claims Commission,

Hereby promulgates the following:

Section 1

DEFINITIONS

For the purposes of the present regulation:

“Abandoned housing” means any property, which the owner or lawful possessor and the members of his/her family household have permanently or temporarily, other than for an occasional absence, ceased to use and which is either vacant or illegally occupied.

“Allocation right holder” means the holder of the right of disposal of a socially owned apartment in accordance with the law that was applicable at the time.

“Associated property” means land and buildings owned or used by the claimant, which form a unit with a residential property.

“Commission” means the Housing and Property Claims Commission established under UNMIK Regulation No. 1999/23.

“Directorate” means the Housing and Property Directorate established under UNMIK Regulation No. 1999/23.

"Discrimination" means any distinction on grounds such as language, religion, political or other opinion, national or ethnic origin, or association with a national community, which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of a property right.

"Informal transaction" means any real property transaction, which was unlawful under the provisions of the Law on Special Conditions Applicable to Real Estate Transactions (Official Gazette SRS 30/89, as amended by the laws published in Official Gazette SRS 42/89 and 22/91) or other discriminatory law, and which would otherwise have been a lawful transaction.

"Occupancy right" means a right of use of a socially owned apartment under a contract on use of the apartment made under the Law on Housing Relations¹ or the Law on Housing.² It does not include the right to use apartments for official purposes ('service apartments') or apartments used as temporary accommodation, or leases of socially owned apartments.

"Property" means any residential house or apartment, any socially owned apartment, and any associated property.

"Property right" means any right of ownership of, lawful possession of, right of use of or occupancy right to, property.

CHAPTER I: SUBSTANTIVE PROVISIONS

Section 2

GENERAL PRINCIPLES

2.1 Any property right which was validly acquired according to the law applicable at the time of its acquisition remains valid notwithstanding the change in the applicable law in Kosovo, except where the present regulation provides otherwise.

2.2 Any person whose property right was lost between 23 March 1989 and 24 March 1999 as a result of discrimination has a right to restitution in accordance with the present regulation. Restitution may take the form of restoration of the property right (hereafter "restitution in kind") or compensation.

2.3 Any property transaction which took place between 23 March 1989 and 13 October 1999, which was unlawful under the provisions of the Law on Special Conditions Applicable to Real Estate Transactions (Official Gazette SRS 30/89, as amended by the laws published in Official Gazette SRS 42/89 and 22/91) or other discriminatory law, and which would otherwise have been a lawful transaction, is valid.

2.4 Any person who acquired the ownership of a property through an informal transaction based on the free will of the parties between 23 March 1989 and 13 October 1999 is entitled to an order from the Directorate or Commission for the registration of his/her ownership in the appropriate public record. Such an order does not affect any obligation to pay any tax or charge in connection with the property or the property transaction.

¹ Official Gazette SAPK, No. 11/83, 29/86, 42/86 (hereafter "the Law on Housing Relations").

² Official Gazette SRS, No. 50/92, 49/95 (hereafter "the Law on Housing").

2.5 Any refugee or displaced person with a right to property has a right to return to the property, or to dispose of it in accordance with the law, subject to the present regulation.

2.6 Any person with a property right on 24 March 1999, who has lost possession of that property and has not voluntarily disposed of the property right, is entitled to an order from the Commission for repossession of the property. The Commission shall not receive claims for compensation for damage to or destruction of property.

Section 3

RESTITUTION OF PROPERTY LOST AS A RESULT OF DISCRIMINATION

3.1 No claim for restitution of residential property lost between 23 March 1989 and 24 March 1999 as a result of discrimination may be made to any court or tribunal in Kosovo except in accordance with UNMIK Regulation No. 1999/23 and the present regulation.

3.2 A claim under section 1.2 (a), (b) or (c) of UNMIK Regulation No. 1999/23 must be submitted to the Directorate before 1 December 2001. The deadline for submission of claims may be extended by announcement of the Special Representative of the Secretary-General, who may:

- (a) Decline to extend the deadline for a category of claims or for purposes of section 5.2; and
- (b) Provide different deadlines for different categories of claims or for purposes of section 5.2.

3.3 Where a claimant is found by the Commission to be entitled to restitution, the Commission shall award restitution in kind unless the ownership of the property has been acquired by a natural person through a valid voluntary transaction for value before the date this regulation entered into force.

Section 4

RESTITUTION OF OCCUPANCY RIGHTS TO SOCIALLY OWNED APARTMENTS LOST AS A RESULT OF DISCRIMINATION

4.1 This section applies to any occupancy right to a socially-owned apartment which was cancelled as a result of discrimination.

4.2 As an exception to section 3.3, in relation to a socially owned apartment which was subsequently purchased from the allocation right holder by the current owner under the Law on Housing (hereafter "First Owner"), the following rules shall apply:

- (a) The claimant has a right to the ownership of the apartment upon payment to the Directorate of:
 - (i) The purchase price for the apartment contained in the contract of sale concluded by the First Owner; or

- (ii) The price at which the claimant would have been entitled to purchase the apartment under the Law on Housing but for the discrimination (whichever is determined by the Directorate to be less), plus a percentage of the current market value of the apartment, as determined by the Directorate, and the cost of any improvements made to the apartment by the First Owner.
- (b) To exercise the right to restitution in kind, the claimant must pay the sum referred to in section 4.2(a) to the Directorate within 120 days of the Commission's decision on the right to restitution. Upon the claimant's application, the Directorate may extend the deadline by up to 120 days if not extending it would result in undue hardship to the claimant. Upon payment of this sum, the Commission shall issue a decision awarding ownership of the apartment to the claimant; and
- (c) Money paid under section 4.2(b) will be held by the Directorate in a trust fund. A First Owner who loses the ownership of an apartment under this section will upon request be compensated by the Directorate from the trust fund for the amount s/he paid for the purchase of the apartment, a percentage of the current market value of the apartment, as determined by the Directorate, as well as for the cost of any improvements s/he made to the apartment. Any outstanding obligations of the First Owner under the Law on Housing are cancelled.
- 4.3 Except as provided in the previous section, no person whose rights are affected by a decision of the Commission awarding restitution in kind shall be entitled to any form of compensation.
- 4.4 Any claimant found by the Commission to have a right to restitution of a socially owned apartment, but who is not awarded restitution in kind in accordance with section 4.2, shall be issued a certificate by the Directorate stating the current market value of the apartment in its current condition, minus the amount which the claimant would have been required to pay for the purchase of the apartment under the Law on Housing. The Directorate shall establish formulae for determining these amounts and the amounts referred to in sections 4.2(a) and (c).
- 4.5 Any person with a certificate under section 4.4 shall be entitled to fair compensation proportionate to the amount stated in the certificate, to be paid from such funds as may be allocated in the Kosovo Consolidated Budget or any fund set up for this purpose under the present regulation. The method of calculation and payment of such compensation shall be established in subsequent legislation.

Section 5

RESTRICTIONS ON DISPOSAL OF APARTMENTS PENDING RESTITUTION CLAIMS

- 5.1 This section applies to any person who purchased an apartment from the allocation right holder in accordance with the Law on Housing, where neither that person nor a member of that person's family household was the occupancy right holder of the apartment before 23 March 1989.
- 5.2 Until the deadline referred to in section 3.2 of the present regulation, or until the resolution of any claim for the apartment made under the present regulation, whichever is the

later, a person to whom this section applies shall be considered a lawful possessor of the apartment. During this period, the person may not transfer the apartment to any other person, except when the transfer is part of an amicable settlement of the claim through the agreement of the parties in accordance with section 10.1 of the present regulation. Any contract relating to a sale, exchange or gift made in contravention of this section shall be null and void.

Section 6

ALLOCATION AND USE OF SOCIALLY OWNED APARTMENTS

With regard to the exclusive jurisdiction entrusted to the Directorate over the matters set out in section 1.2 of UNMIK Regulation No. 1999/23, the following provisions shall apply:

- (a) Article 3 of the Law on Housing Relations is suspended by the present regulation;
- (b) Notwithstanding the provisions of any other law, no occupancy right to a socially owned apartment may be terminated without:
 - (i) The consent of the occupancy right holder or the Housing and Property Directorate; or
 - (ii) An order of the Commission, as provided for in the present regulation; and
- (c) Notwithstanding Article 24 of the Law on Housing Relations, leases of socially owned apartments are permitted.

CHAPTER II: RULES OF THE HOUSING AND PROPERTY DIRECTORATE

Section 7

REGISTRATION OF CLAIMS

7.1 The Directorate shall register claims under section 1.2 of UNMIK Regulation No. 1999/23 at offices established for this purpose in Kosovo and in such other locations as it sees fit.

7.2 A claim may be made by a person referred to in section 1.2 of UNMIK Regulation No. 1999/23, or, where that person is unable to make a claim, by a member of the family household of that person. For the purposes of the present regulation, the members of the family household of a property right holder are determined in accordance with Article 9 of the Law on Housing Relations.

7.3 A claimant or a party to the claim may be represented by an authorized person with a valid and duly executed power of attorney. In exceptional cases, where the provision of a power of attorney is problematic the Directorate may certify an alternative document authorizing representation of a claimant.

Section 8

CONTENT OF CLAIMS

8.1 The claim shall be made in a form determined by the Directorate providing all necessary particulars of the claim, signed by the claimant or the authorized person in the presence of a responsible officer of the Directorate (hereafter "Claim Form").

8.2 The claimant must submit with the Claim Form the originals or certified copies of any documents relevant to the claim which are in his/her possession, or which s/he can reasonably obtain from a public record. The Directorate is authorized to certify copies.

8.3 For claims under section 1.2(c) of UNMIK Regulation No. 1999/23, the claimant may, in addition to any other order, seek an order:

- (a) Restoring possession of the property for the purposes of returning to the property or disposing of it in accordance with the law; and
- (b) Placing the property under the administration of the Directorate until such time as the claimant elects to return to the property or dispose of it.

Section 9

THE RIGHTS OF PARTIES TO THE CLAIM

9.1 After receipt of a claim, the Directorate will notify the current occupant of the claimed property if any, and shall make reasonable efforts to notify other persons with a legal interest in the property. In appropriate cases, such reasonable efforts shall take the form of an announcement in an official publication of the Directorate.

9.2 The parties to the claim shall be the claimant and:

- (a) Any current occupant of the claimed property; and
- (b) Any other natural person with a legal interest,

who informs the Directorate of their intention to participate in the proceedings within 30 days of being notified of the claim by the Directorate in accordance with section 9.1. A person with a legal interest in the claim, who did not receive notification of a claim, may be admitted as a party at any point in the proceedings, provided the claim has not been finally adjudicated.

9.3 The current or former allocation right holder to a claimed apartment may make submissions or present evidence in connection with the claim. Anyone who makes submissions in their capacity as a representative of the current or former allocation right holder shall prove to the satisfaction of the Directorate their identity, and a connection to the allocation right holder. However, in no event is the Directorate or the Commission obliged to decide upon any legal question concerning the identity of the allocation right holder or the right to represent the allocation right holder.

9.4 In the notice of intention to participate referred to in section 9.2, the current occupant and any other natural person with a legal interest shall notify the Directorate of an address for delivery of documents. The Directorate shall deliver copies of the Claim Form to each party.

9.5 Within 30 days of receiving a copy of the Claim Form, the receiving party may respond to the claim in a form determined by the Directorate (hereafter "Reply to Claim"). Subject to section 21.1, each party must submit originals or certified copies of any documents relevant to the claim which are in his/her possession, or which s/he can reasonably obtain from a public record.

9.6 In the Reply to Claim, the current occupant may request that his/her housing needs be taken into consideration by the Directorate, and, if so, shall provide to the Directorate all information relevant to an assessment of his/her housing needs.

9.7 The Directorate shall deliver copies of the Reply to Claim to the other parties. In appropriate cases, the Directorate may provide the parties with summaries in the language of their choice of any document presented by another party. Any party may respond to any matter raised in the Reply to Claim within 30 days.

9.8 The Directorate may decline to disclose any information submitted to it by a party to the claim, including the identity of any party or witness, where necessary for the security of any person.

9.9 A Claim Form and a Reply to Claim may be submitted in Albanian, English or Serbian.

9.10 In the interests of the efficient and fair resolution of claims, the Directorate may, in specific cases, extend any deadline or dispense with any procedural rule in this Chapter, where there is good reason to do so and this would not materially prejudice the rights of any party. However, the failure of any party without proper justification to participate in the proceedings or comply with any rule shall not delay the resolution of the claim.

Section 10

RESOLUTION OF CLAIMS

10.1 The Directorate shall endeavour to settle claims amicably through the agreement of the parties. The Directorate shall inform the parties of their rights and obligations under the present regulation, and may take whatever steps it sees fit to facilitate settlements or to assist the parties to resolve their housing needs. The Directorate may develop standardised settlement agreements for use by the parties, and may certify settlement agreements.

10.2 The Directorate may investigate a claim, and obtain evidence relevant to a claim from any record held by a public body, corporate or natural person. The Directorate is entitled to free access without charge to any records in Kosovo relevant to the settlement of a claim or for any other verification purposes.

10.3 The Directorate may, by written decision, reject a claim if it manifestly falls outside the Commission's jurisdiction. A claim may be rejected at any stage of the proceedings before the Directorate.

10.4 The Directorate shall refer to the Commission any claim which cannot be settled amicably or in respect of which the claimant disputes the Directorate's rejection in terms of section 10.3. The Directorate may prepare summaries of submissions and evidence, translations of evidence, and recommendations for the consideration of the Commission.

10.5 The Directorate may at any time in the proceedings, either on the request of the claimant or on its own initiative, recommend that the Commission issues provisional measures of protection or any other directive or order necessary to secure the orderly and expeditious resolution of the claim.

Section 11

UNCONTESTED CLAIMS TO REGISTER INFORMAL TRANSACTIONS

11.1 For claims under section 1.2(b) of UNMIK Regulation No. 1999/23, the Directorate may issue an order for registration of the claimant's informal transaction in the appropriate public record if:

- (a) The claim is uncontested; and
- (b) The Directorate is satisfied that there is sufficient evidence that the claimant acquired the property right through an informal transaction between 23 March 1989 and 13 October 1999.

11.2 An order of the Directorate under this section is not a binding decision on property rights, and does not affect the right of any person to make a further claim to the Directorate under section 1.2 of UNMIK Regulation No. 1999/23. Such further claim must be made within 30 days of learning of the Directorate's order but not later than one (1) year from the date of the Directorate's order. The Directorate must publish orders made in terms of this section.

Section 12

PROPERTIES UNDER THE ADMINISTRATION OF THE DIRECTORATE

12.1 The Directorate is authorized to administer abandoned housing for the purpose of providing for the housing needs of displaced persons and refugees.

12.2 The Directorate may make an order placing a property under its administration in any of the following circumstances:

- (a) By agreement of the parties in settlement of a claim;
- (b) On the request of the claimant, following a decision by the Commission confirming the property right of the claimant;
- (c) Following eviction of the current occupant, if the claimant fails to repossess the property within 14 days of being notified of the execution of the eviction;

- (d) Where no claim has been submitted for the property, and the property is either vacant, or the current occupant of the property does not assert any property right to the property; or
- (e) Where no claim has been submitted for the property, on the request of the owner or occupancy right holder of the property.

12.3 For as long as a property is under the administration of the Directorate (hereafter "property under administration"), the rights of possession of the owner or occupancy right holder are suspended in the public interest.

12.4 The Directorate may grant temporary permits to occupy property under its administration, subject to such terms and conditions as it sees fit. Temporary permits shall be granted for a limited period of time, but may be renewed upon application.

12.5 The Directorate shall establish criteria for the allocation of properties under administration on a temporary humanitarian basis.

12.6 The Directorate may issue an eviction order in relation to a property under administration at any time in any of the following circumstances:

- (a) Where the current occupant does not qualify for a temporary permit;
- (b) Where a temporary permit has expired; or
- (c) Where the holder of a temporary permit ceases to qualify for accommodation on humanitarian grounds or does not comply with the terms and conditions of the temporary permit.

12.7 The owner or occupancy right holder of a property under administration may give notice to the Directorate of his/her intention to return into possession of the property. Following a request from the owner or occupancy right holder, the Directorate will deliver an eviction order requiring the current occupant to vacate the property within 90 days, and if the current occupant does not voluntarily vacate the property, the Directorate will issue a warrant authorizing execution of the eviction order. The administration of the property by the Directorate terminates upon repossession of the property by the owner or occupancy right holder.

12.8 The Directorate shall make reasonable efforts to minimize the risk of damage to any property under its administration. The Directorate shall bear no responsibility for any damage to property under administration or loss of or damage to its contents.

Section 13

EXECUTION OF DECISIONS AND EVICTION ORDERS

13.1 The Directorate shall deliver a certified copy of a Commission decision and any order to each party at the address given in terms of section 9.4. The decision and any order are effective from the date of delivery to the last party, unless the decision or order provides otherwise.

13.2 The Directorate shall deliver an eviction order issued by the Commission to the current occupant of the claimed property. The Directorate may, at its discretion, delay execution of the eviction order for up to 6 months, pending resolution of the housing needs of the current occupant, or under circumstances that the Directorate deems fit. The Directorate shall inform the current occupant and the claimant of the reason for the delay.

13.3 Save for an eviction order in section 12.7 or an order by the Commission providing otherwise, an eviction order issued by the Commission, or in the case of property under its administration, by the Directorate, is executable 30 days after delivery. The eviction order may be executed against any person occupying the property at the time of the eviction.

13.4 An eviction shall be executed by the responsible officer of the Directorate, with the support of the law enforcement authorities. The said officer and authorities must be in possession of a warrant signed by:

- (a) The Registrar, in the case of an order of the Commission; or
- (b) A senior official of the Directorate, in the case of an order made by it, authorizing execution of the eviction order.

13.5 During the execution of an eviction order, any person who fails to obey an instruction of the responsible officer to leave the premises may be removed by the law enforcement authorities. In the event that movable property is also removed, the Directorate shall make reasonable efforts to minimize the risk of damage to or loss of such property. The Directorate shall bear no responsibility for any damage to or loss of removed property.

13.6 The Directorate shall notify the claimant of the scheduled date of the eviction. Following the execution of an eviction, if the claimant or temporary occupant is not present to take immediate possession of the property, the responsible officer shall seal the property, and notify the claimant. Any person who, without lawful excuse, enters a property by breaking a seal may be subject to removal from the property by the law enforcement authorities.

Section 14

RECONSIDERATION REQUESTS OF COMMISSION DECISIONS

14.1 Any party to a claim may submit to the Directorate a request to the Commission for the reconsideration of a Commission decision within 30 days of being notified of the decision:

- (a) Upon the presentation of legally relevant evidence, which was not considered by the Commission in deciding the claim; or
- (b) On the ground that there was a material error in the application of the present regulation.

14.2 Any interested person who was not a party to the claim, and who can show good cause why s/he did not participate as a party to the claim, may request reconsideration of a

Commission decision within 30 days of learning of the Commission's decision but not later than one (1) year from the date of the Commission's decision.

14.3 The execution of a pending eviction order shall be stayed from the time of lodging of the reconsideration request until the Commission has decided on the reconsideration request, unless the Commission determines otherwise.

Section 15

COOPERATION AND DELEGATION

15.1 In the performance of any of its functions under the present regulation, the Directorate may co-operate with and receive information from any intergovernmental, governmental or non-governmental entity.

15.2 The Directorate may delegate any of its functions to the responsible municipal service in one or more municipalities in Kosovo, subject to such supervision arrangements as it considers appropriate.

Section 16

ADDITIONAL RULES

The Directorate may adopt additional rules for carrying out its functions provided that they are consistent with the present regulation.

CHAPTER III: RULES OF PROCEDURE OF THE HOUSING AND PROPERTY CLAIMS COMMISSION

Section 17

GENERAL RULES OF THE COMMISSION

17.1 The Commission shall sit in plenary session or in such Panels as are established under section 2.2 of UNMIK Regulation No. 1999/23. In the present regulation, once two or more Panels have been created, the terms "Commission" and "Chairperson" shall mean "Commission" and "Chairperson of the Commission" in relation to plenary sessions, and "Panel" and "Chairperson of the Panel" in relation to claims considered in Panels.

17.2 The Chairperson of the Commission shall be designated by the Special Representative of the Secretary-General from among members of the Commission. If the Chairperson of the Commission resigns, is removed or is not re-appointed, the longest-serving Panel Chairperson shall be the Acting Chairperson of the Commission pending the designation of the Chairperson by the Special Representative of the Secretary-General. For Panels established subsequent to the first Panel, the Chairperson shall be designated by the Chairperson of the Commission after consultation with the members of the Panel.

17.3 Members of the Commission shall be appointed by the Special Representative of the Secretary-General for an initial term of one year. They may be re-appointed for one or more additional terms.

17.4 A member of the Commission may be removed from office by the Special Representative of the Secretary-General on the recommendation of a majority of the members of the Commission for failure to meet the qualifications for office or for persistent and unjustified refusal to perform the duties of office.

17.5 A member of the Commission who intends to resign shall:

- (a) Provide at least one month's written notice to the Registrar and the chairperson of the plenary Commission;
- (b) Continue to perform all his/her functions until the end of the notice period subject to section 17.5 (c); and
- (c) Continue to serve after the end of the notice period for the limited purpose of finalising any claim or group of claims which is still pending before that member's Panel.

17.6 Without prejudice to any other law or regulation dealing with immunity, members of the Commission and staff members of the Commission and Directorate shall be immune from any criminal or civil proceedings for any acts carried out within the scope of their official duties.

17.7 The Registrar in consultation with the Chairperson of the Commission shall determine the number and date of its sessions.

17.8 The seat of the Commission shall be in Pristina. The Commission may decide to hold sessions elsewhere if it thinks fit. In appropriate cases, deliberations of the Commission may take place through electronic means.

17.9 The Chairperson of the Commission shall direct the work of the Commission and preside at its sessions.

17.10 The Commission shall elect a Vice-Chairperson who shall perform the functions of the Chairperson in the absence of the Chairperson.

17.11 Members of the Commission unable to participate in a session shall give written notice to the Registrar and the Chairperson at least two weeks before the session. The notice must provide the reasons for the inability to participate.

17.12 Members of the Commission serve only in their personal capacity. They shall not take part in any proceedings on a claim in which they have a personal interest, or if they have been consulted by or are associated with a party to the claim, or if they have been involved in any legal proceedings on the claim other than the proceedings before the Directorate and Commission, or if there are any other circumstances which may affect their impartiality. In case of any doubt concerning this paragraph, or in any other circumstance which might affect the impartiality of members in deciding a claim, the Chairperson shall decide or, in the event that the Chairperson's impartiality could be affected, the Vice-Chairperson shall decide.

17.13 The Registrar of the Commission shall be appointed by the Executive Director of the Directorate in consultation with the Chairperson. The Registrar and staff members of the Commission will provide administrative, technical and legal support to the Commission.

17.14 The Registrar, in consultation with the Chairperson of the plenary Commission, shall determine the order in which claims will be considered by the Commission, and shall allocate claims between the Panels, taking into account the desirability of developing a consistent practice.

17.15 The official languages of the Commission shall be Albanian, English and Serbian. The Chairperson may permit any member or person appearing before the Commission to speak in any other language.

17.16 Interpreters employed by the Directorate or the Commission in connection with Commission proceedings shall make the following declaration:

"I solemnly declare that I will perform my duties as interpreter faithfully, impartially and conscientiously, and with full respect for the duty of confidentiality."

Section 18

PLENARY SESSIONS OF THE COMMISSION

18.1 The Commission shall decide, in plenary session, on additional rules of procedure and evidence in accordance with section 26, and on such issues that may be referred to it in accordance with section 20.4.

18.2 Until such time as more than one Panel is established, the quorum for plenary sessions of the Commission shall be two members. Decisions shall be made in accordance with section 20.3.

18.3 Following the establishment of two or more Panels, the quorum for plenary sessions shall be a majority of the members of all Panels. Decisions shall normally be taken by consensus. If a consensus cannot be reached, a decision shall be taken by majority vote. In the event of a tied vote, the Chairperson of the Commission shall have the casting vote in addition to the vote to which each member is entitled.

Section 19

PROCEEDINGS OF THE COMMISSION

19.1 The Commission shall, subject to sections 19.2 and 19.3, decide claims on the basis of written submissions, including documentary evidence.

19.2 No party may give oral evidence or argument before the Commission unless invited to do so by the Commission. An oral hearing shall take place in public, with due notice to the parties, unless the Chairperson determines otherwise for reasons of the security of the parties or other special circumstance. Proceedings in an oral hearing shall be conducted under the direction of the Chairperson.

19.3 The Commission may consider written or oral submissions from any intergovernmental, governmental or non-governmental entity or expert witness on any matter relevant to a claim.

19.4 The Commission may appoint any one of its members to carry out any of its functions, including attending the hearing of oral evidence at any place, and to report back to the Commission.

19.5 The Commission may:

- (a) Consider claims raising common legal and evidentiary issues together;
- (b) Delegate to the Registrar and the staff members of the Directorate assigned to service the Commission certain claims review and evidentiary review functions, subject to the supervision of the Commission;
- (c) Use computer databases, programs and other electronic tools in order to expedite its decision-making; and
- (d) Take any other measures it considers appropriate to expedite its decision-making.

19.6 The Commission may, in specific cases, proceed notwithstanding non-compliance with any procedural rule by any Party or by the Directorate in the interests of the efficient administration of justice, where there is good reason to do so and this would not materially prejudice the rights of any party.

19.7 Prior to deciding a claim, the Commission may issue any interim order consistent with the present regulation, which it considers necessary for an orderly and expeditious resolution of the claim.

19.8 All proceedings before the Directorate and the Claims Commission, including the completion and submission of claim and reply to claim forms, are considered to be administrative proceedings for the purposes of section 176 of the Penal Law of Kosovo (Official Gazette of the SAPK no 20/77, 25/84 and 44/84) concerning false testimony.

Section 20 PANELS

20.1 Subject to sections 17.11, 17.12, 20.2 and 25.1, claims shall be adjudicated by a Panel.

20.2 The quorum for meetings of a Panel shall be two members.

20.3 Decisions of a Panel shall normally be taken by consensus. If all members of a Panel are present and a consensus cannot be reached, a decision shall be taken by majority vote. If two members of a Panel are present and a consensus cannot be reached, the Chairperson of the Panel shall defer consideration of the claim to the next session of the Panel.

20.4 A Panel or the Chairperson of a Panel may refer specific issues relating to a claim to the plenary session of the Commission for guidance. Decisions of a Panel to refer specific issues to the plenary session of the Commission shall be made in accordance with sections 20.2 and 20.3.

20.5 In deciding on a claim or on whether to refer specific issues relating to a claim to the plenary session of the Commission, members of a Panel may not abstain.

20.6 The Chairperson of the Commission may temporarily designate a member of a Panel to serve on a different Panel where s/he deems it necessary for the proper functioning of the Commission.

Section 21

EVIDENCE

21.1 The Commission may be guided but is not bound by the rules of evidence applied in local courts in Kosovo. The Commission may consider any reliable evidence, which it considers relevant to the claim, including evidence presented by the Directorate concerning the reliability of any public record.

21.2 The Commission may require the Directorate to obtain more information from a party, or to conduct additional investigations.

Section 22

DECISIONS OF THE COMMISSION

22.1 The Commission may refer issues arising in connection with a claim, which are not within its jurisdiction to a competent local court or administrative board or tribunal.

22.2 A panel shall be bound by the principles established in:

- (a) Its own decisions and the decisions of another Panel, unless compelling reasons exist for deviating from those principles; and
- (b) The decisions of the plenary Commission.

22.3 The Commission shall not award any remedies other than those provided for in the present regulation.

22.4 No party may recover any costs from any other party in connection with proceedings before the Directorate or Commission.

22.5 The Commission may limit its decision to rights of possession of the claimed property where that would provide an effective remedy for the claim.

22.6 Where a claim is made by a family member of the property right holder in accordance with section 6.2, the Commission may decide any property right in the name of the property right holder, and make an order for possession in favour of the claimant. Such a decision

shall not determine or affect any legal issue between the claimant and the property right holder or any other person not a party to the claim. Following the Commission's decision, local courts in Kosovo retain jurisdiction to adjudicate any legal issue not decided by the Commission.

22.7 In its decision, the Commission may:

- (a) Decide such property rights as are necessary to resolve the claim;
- (b) Make an order for possession of the property in favour of any party;
- (c) Order the registration of any property right in the appropriate public record;
- (d) Where necessary, to resolve a claim, vary the terms of any contract made for the purpose of avoiding a discriminatory law, so as to reflect the actual intention of the parties to the contract;
- (e) Cancel any lease agreement in respect of a property which is subject to an order in terms of the present regulation and make ancillary orders to give effect to the cancellation;
- (f) Refuse a claim; and
- (g) Make any other decision or order necessary to give effect to the present regulation.

22.8 A decision shall contain:

- (a) The date of adoption;
- (b) The names of the parties and their representatives;
- (c) The relief sought;
- (d) The reasons for the decision, including the material facts and property rights found by the Commission; and
- (e) The orders of the Commission.

22.9 Decisions shall be signed by the Chairperson, provided that if the number of claims decided in a session is high, the Chairperson may sign a cover decision approving all individual decisions identified in the cover decision. The individual decisions shall be certified by the Registrar. A copy of an original document signed by the Chairperson which has been sent to the Registrar by facsimile transmission of the original is sufficient authority for any actions taken pursuant to the document.

22.10 The Registrar shall publish the decisions of the Commission, or summaries of the decisions.

22.11 The Registrar is authorized to correct any textual errors in a Commission decision, which do not materially affect the rights of any party, if the Chairperson of the Commission agrees.

Section 23

SUMMARY PROCEDURE

23.1 Any claim under section 1.2(c) of UNMIK Regulation No. 1999/23, which is uncontested, may be considered by the Commission under a summary procedure.

23.2 In a summary procedure, the Commission may make an order for recovery of possession of the property if satisfied that there is evidence that the claimant was in uncontested possession of the property prior to 24 March 1999.

23.3 A summary decision shall contain:

- (a) The date of adoption;
- (b) The names of the parties and their representatives; and
- (c) The operative provisions of the decision.

23.4 Section 23 does not prevent the Commission from deciding any other uncontested claim summarily.

Section 24

PROVISIONAL MEASURES

24.1 Upon the recommendation of the Directorate, whether at the request of the claimant or otherwise, the Commission may issue provisional measures of protection where it appears likely that, if provisional measures were not issued, a party would suffer harm, which cannot subsequently be remedied.

24.2 In exceptional circumstances, on the recommendation of the responsible law enforcement agencies and where necessary to control a continuing threat to public security, provisional measures may include the eviction of the current occupant of the claimed property, where the Commission is satisfied that there is evidence of prior uncontested occupation of the property by the claimant. An eviction order issued under this section may be executed by the responsible law enforcement authorities without notice.

Section 25

RECONSIDERATION OF DECISIONS

25.1 Following the establishment of two or more Panels of the Commission, any reconsideration of a matter shall be conducted by a different Panel than the one that decided the claim, unless the Chairperson of the Panel appointed to conduct the reconsideration, in consultation with the Chairperson of the Commission, determines that it should be conducted in plenary session.

25.2 In the reconsideration of a decision, the Commission or a Panel established by it shall consider all evidence and representations submitted with respect to the original claim and any new evidence and representations with respect to the reconsideration request. The Commission or Panel concerned shall either reject the reconsideration request, or issue a new decision on the claim.

Section 26
ADDITIONAL RULES

The Commission may adopt additional rules for carrying out its functions provided that they are consistent with the present regulation.

CHAPTER IV: GENERAL PROVISIONS

Section 27
IMPLEMENTATION

The Special Representative of the Secretary-General may issue administrative directions for the implementation of the present regulation.

Section 28
APPLICABLE LAW

The present regulation shall supersede any provision in the applicable law that is inconsistent with it.

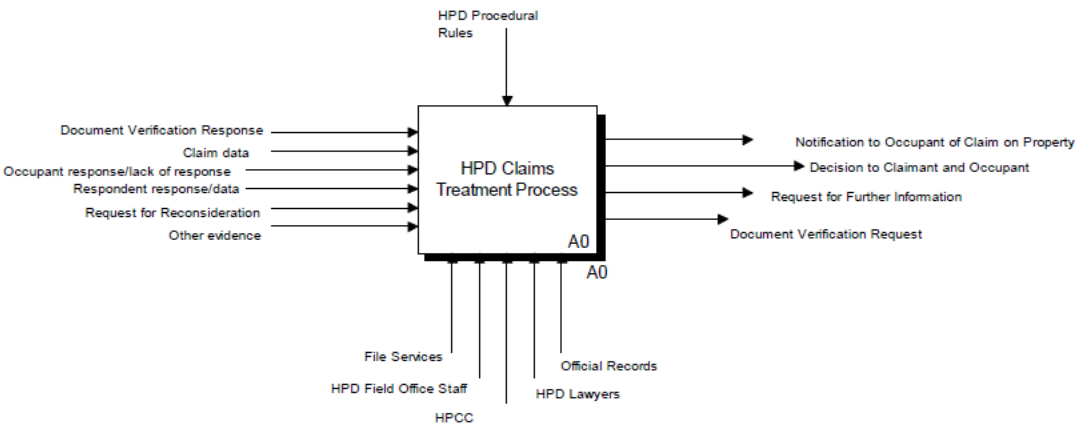
Section 29
ENTRY INTO FORCE

The present regulation shall enter into force on 31 October 2000.

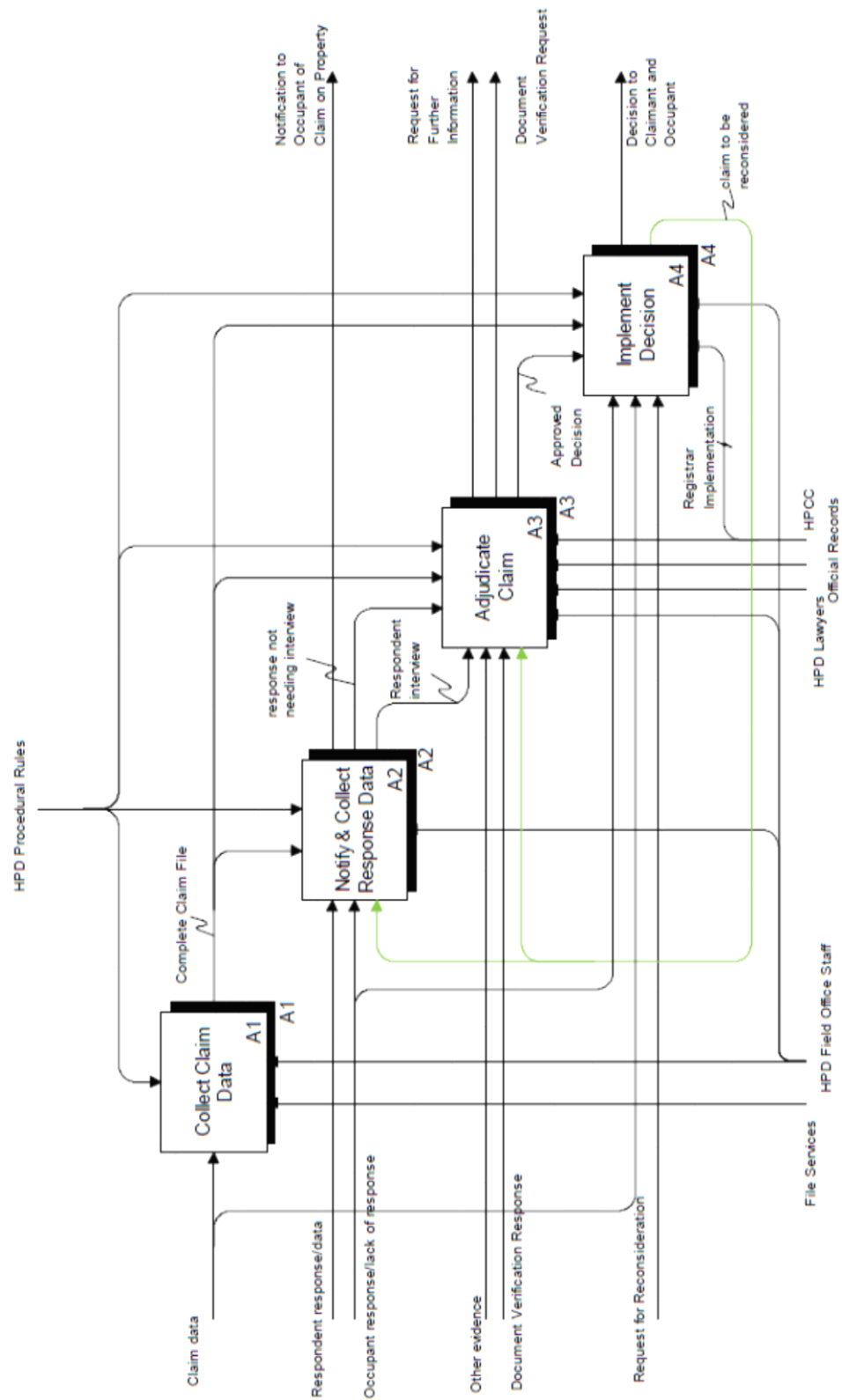
Bernard Kouchner
Special Representative of the Secretary-General

N. Appendix N – HPD Delivery System Models

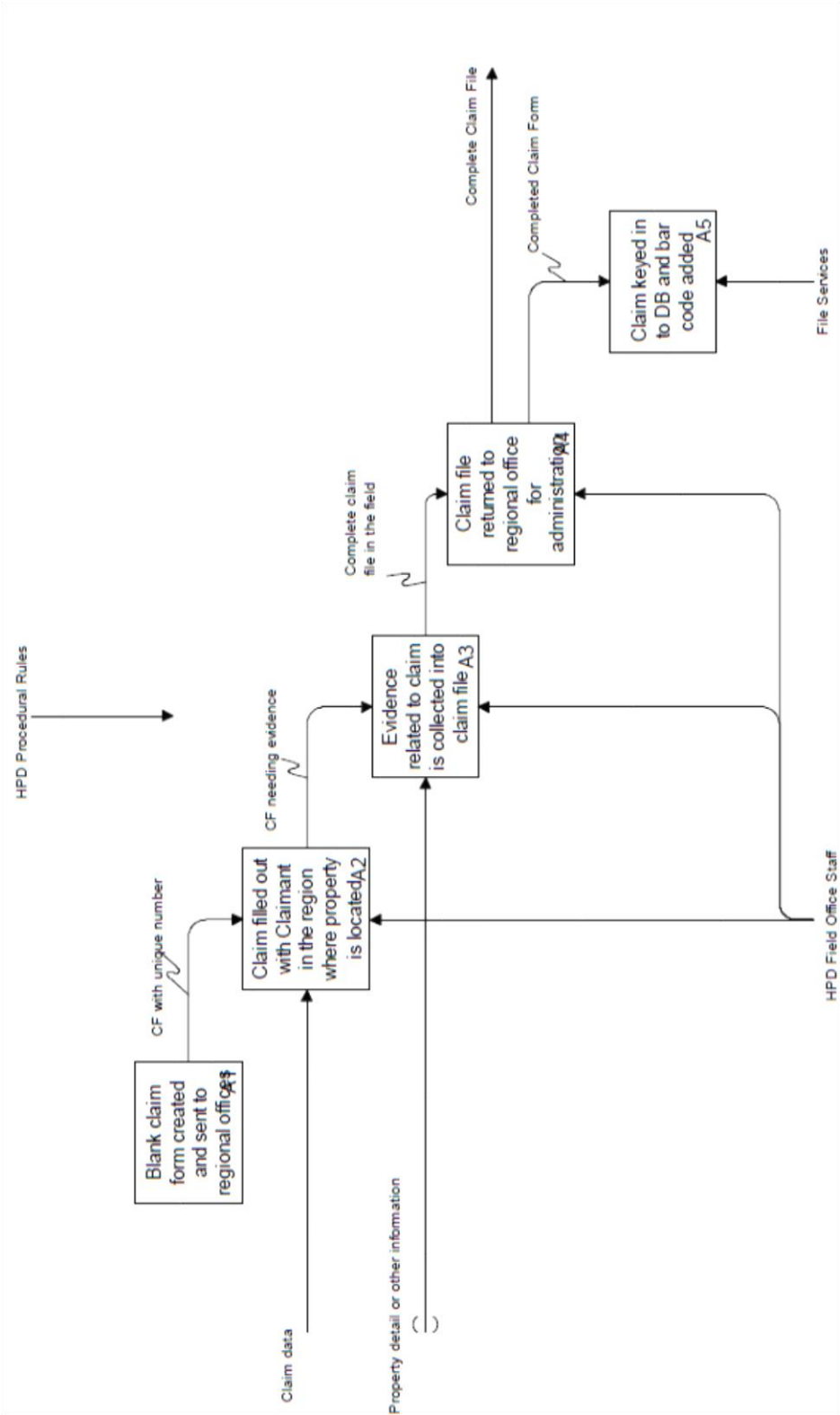
Top-level view of the HPD operational delivery system (A-0).



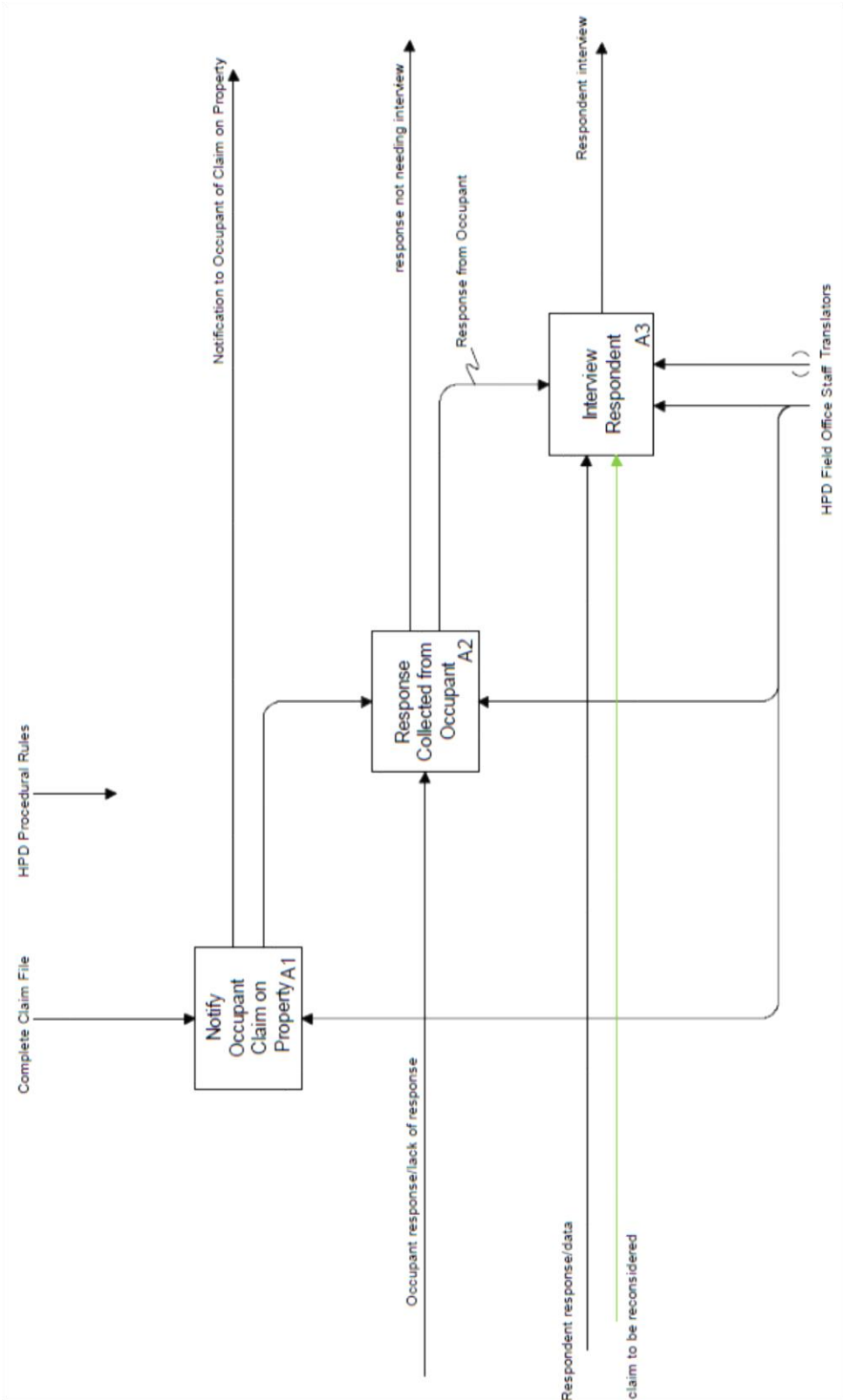
A0 – HPD Claims Treatment Process model



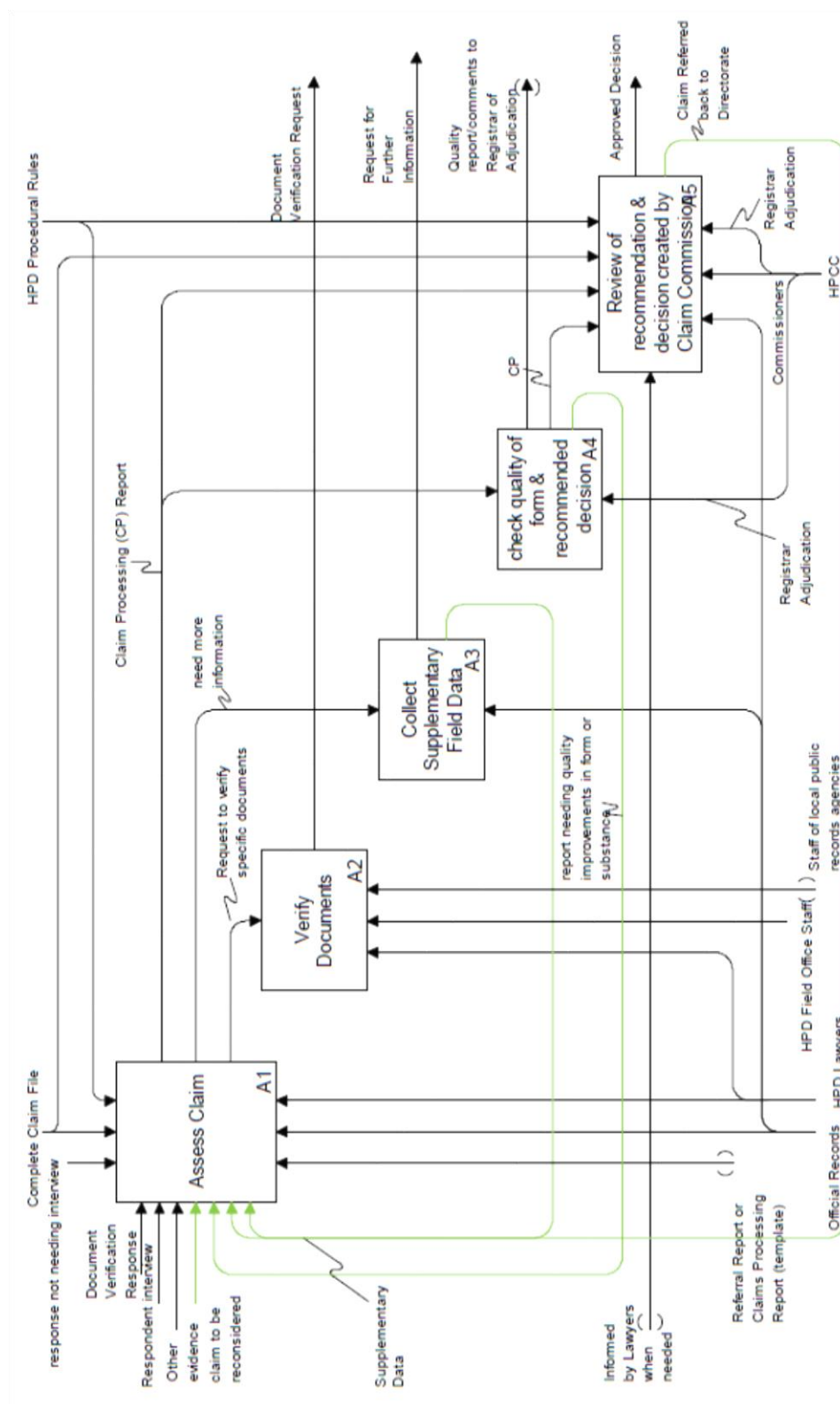
A1 – Collect Claim Data:



A2 – Notify and Collect Response Data:



A3 – Adjudicate Claim



A4 – Implement Decision

